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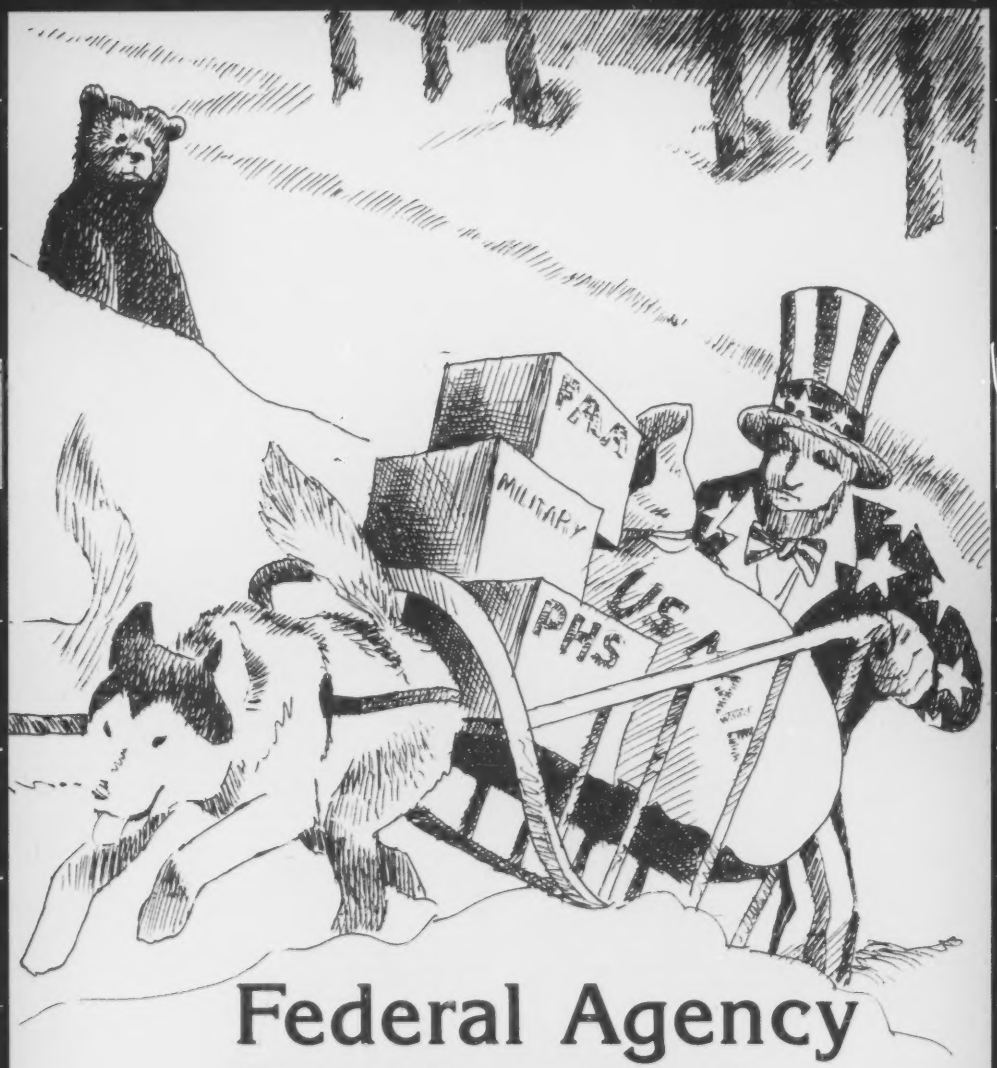
ALASKA ECONOMIC TRENDS



Federal Agency Employment in Alaska

November 1987

The Military and Alaska's Economy

Federal Government Occupations in Alaska

Alaska's Employment Scene

Alaska Economic Trends

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

Federal Agency Employment in Alaska

By John Boucher

The federal government has been the largest single employer in the state of Alaska since well before statehood. This includes all types of federal employment; military, civilian military, and federal agency employment. Since 1980 there has been a distinct shift in the total employment pattern of the federal government in Alaska. Agency employment, which is every federal function in Alaska that is nonmilitary in nature, has been declining at a steady pace. On the other hand military and civilian military employment has been on the upswing.

This article will examine federal agency employment patterns in Alaska and examine which federal agencies are prominent in Alaska and why. Following that will be an examination and analysis of federal government employment patterns over the last six years. The article will conclude with a brief outlook for federal agency employment in the state.

A clear understanding of what constitutes federal agency employment in this article is necessary. In this article, federal agency employment includes agencies such as the U.S. Department of the Interior, U.S. Department of Agriculture and U.S. Department of Transportation. No uniformed or civilian military are counted in these figures. The U.S. Coast Guard, which is under the U.S. Department of Transportation, is not included in these figures. For a detailed look at the military's role in Alaska, including the Coast Guard, see 'The Military in Alaska's Economy' in this issue of *Trends*.

Federal Agency Employment—The Prominent Players

In 1986 federal agency annual average employment was 9,590. This represented about 4% of total wage and salary employment in Alaska and was larger than the annual average employment in Alaska's mining industry. Five agencies accounted for 86% of the 9590 workers in federal employment in Alaska. Those five agencies from the largest were: the U.S. Department of the Interior, the U.S. Postal Service, the U.S. Department of Transportation, the U.S. Department of Health and Human Services, and the U.S. Department of Agriculture (Table 1).

The activities of these five agencies gives some insight into the unique character of the federal government in Alaska. As the largest land owner in the state the federal government needs to manage the resources of its lands. Most of the Department of Interior's individual branches are charged with managing federal lands or the resources associated with those lands. Because the amount of federal lands in Alaska are so much greater than in other states the number of Department of Interior employees is relatively large.

Since 1980 there has been a distinct shift in the total employment pattern of the federal government in Alaska.

The second largest employer in the state, the U.S. Postal Service, is no real surprise because it is the largest federal employer in most states. The Postal Service also requires a large contingent of employees in Alaska because of the unique geographic characteristics of the state. Mail is delivered to far flung areas of the state and the Postal Service must have means to provide this service. In many areas of the state the volume of mail is much more than normal circumstances warrant. For example, in some remote areas it is common for residents to call up a grocer in a nearby larger town and order groceries to be sent through the mail.

The U.S. Department of Transportation's large complement of employees is related to another of Alaska's unique characteristics—its dependance upon air transportation.

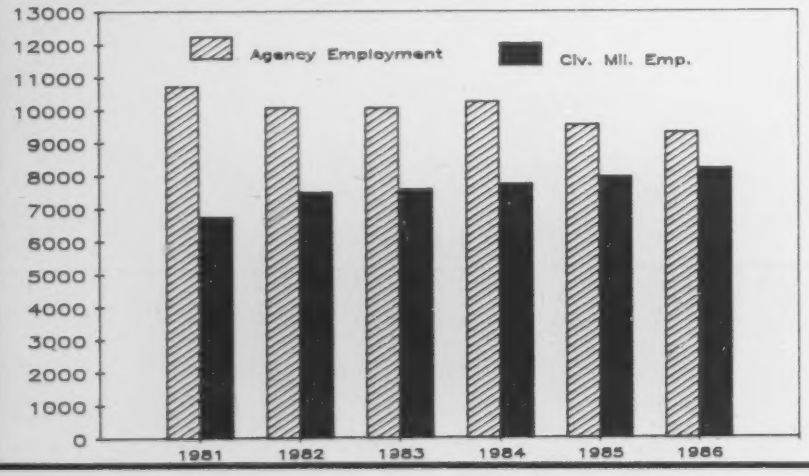
The Department's largest number of employees are in the Federal Aviation Administration. These employees man airports, provide inspections, and in general support Alaska's air transportation industry.

The U.S. Department of Health and Human Services large detachment of employees is to serve the public health needs of the state. Over ninety percent of all of Department's employees are in the Public Health Service in communities around the state. The PHS has traditionally been an important provider of basic medical service to rural Alaska, especially to the native population.

The U.S. Department of Agriculture's employees in Alaska serve in a similar capacity to the Interior's in that they are predominantly resource and land managers. The difference is that the lands that they are managing are the Tongass and Chugach National Forests. The Forest Service is almost 90% of all Department of Agriculture employment.

These five agencies comprised 86% of federal agency employment in 1986. A whole host of federal agencies make up the balance of federal agency employment in Alaska. Among the larger of the remaining groups are the Department of Commerce, the Department of the Treasury (IRS) and the Veterans Administration.

Figure 1
Federal Civilian Employment
Agency and Civilian Military 1981 – 1986



Agency Employment Trends 1981—1986

Since 1981 federal agency employment has been on a downward trend. In the six year period, ending in 1986, 14% of agency employment was lost (Graph 1). Not all agencies declined during this period, in fact some agencies grew. In general though federal government employment was on a steady downtrend.

Department of Interior

From 1981-1986 the Department of Interior's Alaska employment declined 20.3%, which was slightly greater than the average for all federal agencies. The real story in the Department, however, is the tremendous shifts that have occurred. In 1981 the Department of Interior's largest branches in terms of employment were the Bureau of Land Management with 42% of nearly 2,900 employees and the Bureau of Indian Affairs (BIA) with 30% of the total. No other branch had more than 10% of the annual average employment of the Department of Interior.

By 1986 the Bureau of Indian Affairs (BIA) had dropped to the fourth largest branch in Interior comprising only 10% of Interior's total employment. The Bureau of Land Management remained fairly close to its overall share with 41% of total Department of Interior employment, while two agencies, the National Park Service and Fish and Wildlife increased their shares of employment.

Several events occurred to shift the mix of agency employment. First, the Bureau of Indian Affairs (BIA) gradually turned over the responsibility for schools that were being run by the BIA to the State of Alaska. In 1981 an average of 630 employees were in schools operated by the BIA in Alaska. By the end of 1986, the BIA had no employees in BIA operated schools.

While the Bureau of Indian Affairs was divesting itself of schools in Alaska, legislation was passed which stimulated employment growth in Fish and Wildlife and the National Park Service. The Alaska National Interest Land Claims Act (ANILCA) established 16 new wildlife refuges in Alaska in 1982. The substantial addi-

tion of wildlife resources and habitat to be managed in Alaska required the addition of new staff and support personnel to accompany it. In response to ANILCA, Fish and Wildlife employment in Alaska has grown 62% since 1981 and become the second largest agency in the Department of Interior in Alaska.

The National Park Service (NPS) responded in a similar fashion to increasing demands for its services, more than doubling employment from 1981 levels. The additional load placed on Alaska's national parks such as Mt. McKinley and Glacier Bay National Monument by Alaska's burgeoning tourist industry was a cause for expansion of NPS employment. Alaska's 40% population increase from 1980-1985 also contributed to NPS employment growth.

U.S. Postal Service

In terms of number of jobs added and percentage growth the U.S. Postal Service (USPS) was far and away the fastest growing federal agency from 1981 through 1986. USPS employment grew 63% during this period, more than 700 jobs. The rapid expansion of Postal Service employment is largely explainable by the rapid population growth in the state in the early 1980s. When population increases business and personal mail volume also increase, generating a need for additional postal workers.

In addition to the increasing mail volumes, many areas such as Wasilla and Palmer expanded postal services. Areas where contracted carriers were used in the past were given city postal carriers. As the larger cities expanded, more stations and branches were required. In 1983 the Postal Service began an aggressive facilities upgrade program, identifying 70 facilities projects which needed attention. From 1983 to 1987 over $112 million was spent on new post offices and upgrading existing facilities. While most new and upgraded facilities resulted in a shift of workforce from existing facilities, the additional facilities added some workforce to the Postal Service.

In addition to increasing and upgrading facilities, the Postal Service in Alaska became a postal district in 1982. Accompanying that was an increase in staff to support the functions of the Alaska postal district which were previously performed in Seattle.

U.S. Department of Transportation

In 1981 the U.S. Department of Transportation was the second largest federal agency in Alaska. By 1986 Transportation employment had dropped 58% and had lost over 900 employees.

Two major events affected the Department of Transportation employment during this period. First, in 1981 the air traffic controllers union (PATCO) went on strike. Staffing levels were immediately affected and although the strike was declared illegal and the strikers were replaced, staffing levels took quite some time to return to normal.

Since 1981 federal agency employment has been on a downward trend.

The second event, the transfer of the Alaska Railroad from federal to state ownership in 1985, was of even more significance to U.S. Department of Transportation employment than the air traffic controllers strike. In 1984 the Alaska Railroad accounted for an annual average of over 700 employees in the Department of Transportation. These 700 employees just dropped off the federal payroll in 1985. Some but not all were picked up by the State of Alaska.

Health and Human Services

The Department of Health and Human Services has experienced a steady erosion of employment since 1981. Budget constraints, combined with a return of health care services to private control are the primary causes.

The Public Health Services (PHS) is the largest entity in Health and Human Services, comprising 90% of the agency's employment in the state. The two major factors affecting the PHS have been budget cuts and the passage of the Indian Self-Determination Act which allows regional native health corporations to assume the administration of Public Health Service facilities.

Under this arrangement what normally happens is the administrative people who are federal employees come immediately under private control. Staff employees retain their federal employment status to retain federal employment benefits. However, as these staff employees resign, retire or leave they are replaced by employees of the nonprofit corporation which administers the facility.

This takeover process of Public Health Service facilities has placed steady downward pressure on PHS employment since 1980. The first contract was in the Bristol Bay area service unit, the second was with Tanana Chiefs to take over the PHS Fairbanks facility (now Chief Andrew Isaac Health Center). The largest contract to date involved the takeover of Mt. Edgecumbe hospital. All of these have contributed to falling federal PHS and Health and Human Services employment in Alaska.

Department of Agriculture

In the Department of Agriculture the U.S. Forest Service (USFS) dominates the employment picture. The Forest Service has been in a gradual paring down process since 1980, much like the Public Health Service. This is primarily due to budget constraints placed on the USFS. The Forest Service consolidated support services to the regional office in Juneau which resulted in less employment in the USFS. In addition, some summer seasonal employment which was previously hired by the USFS is now contracted out. Examples of this type of employment are surveying and timber thinning.

While the Forest Service is often mentioned in the same breath as the timber industry the hardships of the timber industry in Southeast Alaska has minimally affected USFS employment.

Unless current agency plans change, Alaska can expect a continued slow decline in federal employment from 1986 levels.

Combined, the largest five agencies dropped 13.7% in employment from 1981 through 1986. Agencies outside of the largest five fared much worse, falling 20% during the same five years.

Other Agencies

Most agencies, in addition to the largest five, experienced some declines in employment from 1981 to 1986, although a few agencies gained employment. Two agencies in particular grew during this period—The U.S. Department of the Treasury and the U.S. Department of Justice/U.S. Courts.

The Department of Treasury growth was in its largest agency, the Internal Revenue Service (IRS). This growth in the IRS could be expected in Alaska given the high rate of population growth, the high incomes, and the tremendous business growth that occurred in Alaska during the first half of the 1980s. Growth in the U.S. Courts/U.S. Department of Justice (they became two different departments in 1982) was also driven by an increased population.

Among the smaller agencies which experienced employment drops the U.S. Department of Commerce was one of the hardest hit by employment cutbacks. From 1981 to 1986 employment fell nearly a third. Some of the employment was lost from the National Weather Service where reorganizations made for some efficiencies and contracting of some technical services has taken place.

Outlook for Federal Agency Employment

The outlook for the immediate future of nonmilitary related federal agencies in Alaska indicates a slow decline in federal employment the next several years. Unless current agency plans change, Alaska can expect a continued slow decline in federal employment from 1986 levels. If agency plans change or legislative or executive action dictates change, it is far more probable that federal agency employment will decrease as a result of that change rather than increase. Following are some of the expectations of the large agencies in Alaska for the next several years.

Table 1
Federal Employment by Agency
1981-1986

Agency	1981	1982	1983	1984	1985	1986	Percent Change 1981-86
Interior	2,862	2,614	2,493	2,476	2,380	2,280	-20.3
U.S Postal Service	1,328	1,425	1,628	1,893	1,979	2,169	63.3
Transportation	2,240	2,150	2,088	2,073	1,399	1,311	-41.4
Health & Human Services	1,666	1,374	1,359	1,402	1,422	1,248	-25.0
Agriculture	1,239	1,220	1,185	1,134	1,081	1,048	-15.4
Commerce	600	578	577	500	437	406	-32.3
Treasury	276	278	303	321	308	333	20.7
General Services Administration	145	116	115	117	118	117	-19.3
Veterans Administration	146	101	113	127	136	139	-4.8
Justice	115[1]	68	66	67	86	100	41.7[2]
U.S. Courts	-[1]	58	54	55	59	63	-[2]
Housing & Urban Development	62	57	51	43	47	49	-21.0
Small Business Administration	28	25	26	29	30	30	7.1
Office of Personnel Management	22	31	21	21	20	21	-4.5
Labor	20	11	13	13	13	14	-30.0
Federal Communications Commission	13	9	9	11	10	13	0.0
Selective Service	0	0	2	7	5	6	-
General Accounting Office	8	7	7	7	5	3	-62.5%
Interstate Commerce Commission	1	1	1	1	1	1	0.0
TOTAL	10,771	10,117	10,111	10,297	9,536	9,351[1]	-13.2
Total including civilian military	17,544	17,643	17,732	18,075	17,524	17,592	0.3

[1] Reported as two departments, U.S. Dept. of Justice and U.S. Courts beginning 1982.

[2] Percentage change calculated combining Justice & U.S. Courts.

Overall, most of the major employment cuts by the Department of Interior have been completed. The turnover of the BIA schools to the State of Alaska are completed and the consolidation of the Bureau of Land Management has taken place. Of the two growth agencies, the National Park Service and Fish and Wildlife, neither expect to continue in the high growth mode of the last five years. The National Park Service may experience some slight growth if Alaska's tourist industry keeps increasing the burden on the National Parks. One possible area of growth given the recent interest in the mining industry in Alaska may be increased staffing levels at the U.S. Geological Survey to step up mapping efforts of suspected mineralized areas of Alaska.

The U.S. Postal Service has completed much of its expansion of force in Alaska. Most of the hiring that is anticipated will be to replace existing positions due to turnover or retirement. Even though population is declining in some of the areas which the Post Office expanded in the early 1980s, there are no plans to return to pre-1980s type postal service in these areas. Usually, once an area upgrades its postal services those services are there to stay despite population drops.

The Postal Service plans to continue to upgrade its facilities through the next several years. The planned construction budget for federal fiscal year 1988 is $3.35 million, down from $8.45 million in federal fiscal year 1987 but still a substantial amount of construction spending. The current plan is to concentrate on rural areas of the state where new "log cabin" post offices are being constructed. Areas where plans are under consideration for new facilities in the future include North Pole, Wasilla, Kotzebue, Barrow, Bethel and a whole host of other communities. However, it is anticipated that any new facilities brought on stream would result in an reorganization of existing work force rather than an expansion.

Most of the economies that have been made in the Department of Transportation are completed and the outlook for this department is for slight growth. The Federal Aviation Administration is currently under fire in the media for what appears to be an increasing number of incidents relating to safety in the skies. A bill was recently introduced which would require the FAA hire an additional 1,000 air traffic controllers. Whether the additional 1,000 air traffic controllers are hired and some come to Alaska or not, the fact remains that strong sentiment has been expressed to beef up the FAA staffing levels rather than cut back employment.

The outlook for the Public Health Service (PHS) in Alaska is one of continued contraction as more health services are contracted out to native corporation health organizations. Results of the contracting out have been favorable so there doesn't seem to be any major roadblocks to continuing to expand the practice. The question seems to be whether or not these private nonprofit corporations can find it financially feasible to take over the management of these Public Health facilities. Currently, facilities in Bethel and Kotzebue are under consideration for this arrangement which, if successful, would continue to erode PHS employment. In the meantime, turnover of current PHS employees at facilities currently contracted to private entities will contribute to declining employment.

In terms of construction budgets, the PHS plays a large role in many villages in constructing water and sewer projects, solid waste treatment facilities, and other public health construction projects. In cooperation with the Department of Housing and Urban Development (HUD), the Public Health Service provides journeyman and other skilled labor to these projects while the villages usually supply all of the unskilled and semi-skilled labor that is needed. In the last several years the construction budgets for both HUD and PHS have been tapering off and 1988 is expected to be a continuation of that trend. This would mean that there will be less PHS construction employment both in the PHS itself and by villages who provide the employment for the construction of these public health projects.

Of the major agencies only the Department of Agriculture currently is in danger of losing a substantial portion of its employment. The Tongass Timber Supply Fund, which is used to manage the Tongass National Forest, is coming under severe Congressional scrutiny. The U.S. House of Representatives has passed a bill which would repeal the automatic appropriation to the Tongass. If the Tongass Timber Supply Fund were to be cut substantially, Forest Service employment would have to fall. For example if the $21 million dollar reduction which had been proposed were implemented, the Forest Service could expect to lose 100-125 employees.

The Alaska's Congressional delegation is opposed to any change in the Tongass Timber Supply Fund and that may have a very strong influence on Senate lawmakers. If the status quo is kept in regard to the Tongass, Forest Service employment is expected to remain stable during the next several years.

The major employment change in other agencies is three years away and will take place in the Department of Commerce. That will be the hiring of 500-600 workers to perform the 1990 Census of Population. No other single event on the horizon will affect federal employment to the degree that the 1990 Census will, albeit for a short time.

The National Weather Service and other agencies of the National Oceanic and Atmospheric Administration are expected to remain at their current levels of employment for the immediate future. The same is expected for the Internal Revenue Service and the Veterans Administration.

Conclusion

While different agencies have had different experiences during the last five years, the overall trend in non-military federal agency employment in Alaska has been downward. Most of those organizations which lost employment did so through reorganization of their agencies, oftentimes consolidating support services such as personnel and accounting into central offices or simply paring back their support staffs.

In addition to paring down support staff, a good number of agencies which lost employment are contracting out for services previously done in their own agency. In the extreme

case, such as the Public Health Service, the Bureau of Indian Affairs Schools, and the Alaska Railroad, the federal government has relinquished control of these programs to either private nonprofit corporations or the State of Alaska.

It is important to remember that the federal employment numbers, if not carefully examined, can overstate the total employment lost to Alaska's economy. In addition, the military related civilian employment has been increasing over this period so that total federal employment has remained stable.

A good portion of the nonmilitary federal employment lost has been picked up by either private nonprofits or the State of Alaska. Whether it be through contracting out or paring support staff the overall trend has been clear, there has been steadily less nonmilitary federal employment in Alaska during the last five years with just a few agencies bucking the overall trend.

It seems that those agencies which have cut their staffs do not expect any more drastic staff reductions in the next several years with the possible exception of the Forest Service. On the other hand, those agencies which have been in the growth mode for the last several years are not expecting to increase as rapidly as they have been during the past five years. This points to a stabilization of federal employment at somewhere close to 1986s level with some agencies growing and others shrinking.

Recent economic events and a general unsteadiness in the world economy have put pressure on the Administration to cut the federal deficit to steady the economy. This could mean that all agencies will be asked to reexamine their budgets and try to pare away more employment. In that case the expectations for the next few years could change significantly. In some areas of federal employment though, such as the Federal Aviation Administration, there seems to be growing public sentiment to find money to fund these agencies. In any case while the future of federal government employment in Alaska looks steady at this writing, it could change on a moments notice.

The Military and Alaska's Economy

By Neal Fried and Greg Huff

George Rogers, a noted Alaskan economist, once wrote that "by the 50s and 60s Alaska had become primarily an 'exporter' of military defense" . . . and that the military had become "the major industry in the state." It seems strange that the military would be considered an "industry" or an "exporter of defense," but in essence that is what the military in Alaska does. It exports defense to the rest of the nation. In return, Alaska receives economic benefits from the military in a variety of ways, from the paychecks spent in the local economy to payments to local businesses that supply goods and services to the military and to contractors building and repairing the military's infrastructure.

The military in Alaska has considerably more economic clout than in most states.

The economic benefits from the military's presence have been great and indeed the military was "the major industry in Alaska during the 1950s and 1960s." The military's economic might has declined since that time but still provides a solid economic foundation. During the early 1980s the impacts of the military on the Alaskan economy were obscured by the flood of oil dollars that ignited our economy into a period of unprecedented growth but by 1986 the rapid growth came to a screeching halt and the military was again in the limelight.

The military in Alaska has considerably more economic clout than in most states. For example, the number of active duty personnel and the amount of defense expenditures on a per capita basis are far higher in Alaska than in most other states. In this article we will explore the military's influence on Alaska's population and economy.

The Military Population in Alaska 1980-1987

In 1980 the military accounted for 15.7% of Alaska's population. While the military population gradually increased during the early 1980s, the nonmilitary population in Alaska grew so rapidly that by 1985 the military represented only 12.5% of Alaska's population.

Table 1
Alaska's Military Population
Active Duty, Civilian and Dependents
1980-1987

	1980	1981	1982	1983	1984	1985	1986	1987
Military as % of State Population	15.7%	15.1%	14.3%	13.4%	13.1%	12.5%	13.2%	13.4%
Total State Population [1]	419,800	433,800	465,200	497,600	522,000	539,600	542,151	537,080
Total Military Population	65,828	65,485	66,344	66,747	68,143	67,314	71,747	72,110
Dependents: Civilian [2]	8,545	8,672	9,633	9,757	9,957	10,226	10,547	10,573
Dependents: Active Duty [3]	27,903	27,589	27,083	27,100	27,973	26,026	30,007	29,923
Civilian Military (Incl. NAF/Exch.) [4]	6,676	6,775	7,526	7,623	7,779	7,989	8,240	8,260
Active Duty Military [3]	22,704	22,449	22,102	22,267	22,434	23,073	22,953	23,354

Sources:
[1] Figures from Alaska Population Projection, Research and Analysis, Demographics. (1986 and 1987 low projection selected).

[2] Figures estimated from data in Impacts of Military Spending on the Economy of Alaska, Fiscal Years 1980 to 1986, from Alaska Air Command and data from Alaska Department of Labor. A ratio of 1.28 dependents for every military civilian was formulated from these sources.

[3] Alaska Department of Labor, R&A Demographics, unpublished 1987 data. Aleutian Islands figure estimated because it was not available at time of publication.

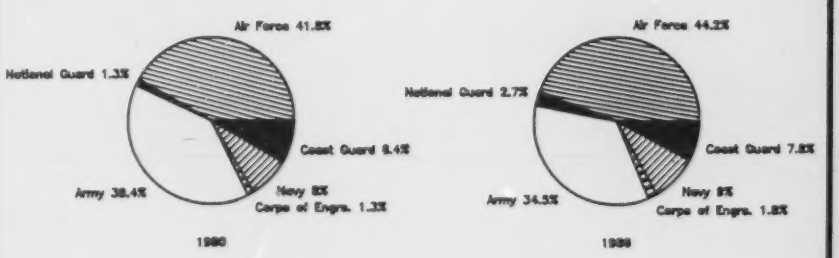
[4] Alaska Department of Labor, ES-202 files.

By 1987, Alaska's recession had prompted people to leave Alaska in search of work. At a time when more people were leaving Alaska than arriving, the military population continued to increase. By 1987 the military accounted for 13.4% of the forecast 537,080 people living in Alaska. This includes 23,000+ active duty personnel plus their 30,000 dependents and 8,000+ civil service personnel (Table 1).

At a time when more people were leaving Alaska than arriving, the military population continued to increase.

The military in Alaska is represented by the Air Force, Army, and Navy and are all organized under the Department of Defense (DOD). The Coast Guard is organized under the Department of Transportation, but provides many defense related services and impacts a local economy in a fashion similar to that of the DOD agencies. Hence, the Coast Guard will be included in the military figures unless specifically noted that the data is not available. The Army's Corps of Engineers and the Army and Air National Guard work force figures are also included in the total military figures

Figure 1
Military Labor Force by Type of Service
1980 and 1986



presented in this article (full-time active duty and civil service only).

In 1980 the Air Force was Alaska's largest military service, representing over 41% of the military's active duty and civil service personnel. This share increased to over 44% by 1986, due to a 12% increase in its work force and a decline in the number of Army active duty personnel over the period. The six year decline in the number of Army active duty personnel ended with the deployment of the 6th Light Infantry Division in Alaska in 1987. The deployment helped boost the number of Army active duty personnel by nearly 1,000 from year ago levels.

In 1980 the Air Force was Alaska's largest military service.

There were shifts in the relative work force figures among Alaska's "smaller" services as well (Figure 1). From 1980 to 1986 the National Guard, Navy, and Army Corps of Engineers increased their proportion of the total military work force as the Coast Guard share declined. This does not reflect a drastic cut back in Coast Guard personnel, but rather significant growth in the Corps of Engineers and National Guard civil service work force and the Navy's active duty work force.

The Corps of Engineers' civilian work force increased by 50% from 1980 to 1986, to over 550 (97% of the Corps work force is civilian). The National Guard full-time work force, both civilian and active duty personnel, doubled over the period. The number of Navy active duty personnel (including the Marines) has increased by one-third as its presence in the North Pacific intensifies.

Some of the increase in the National Guard's share of the military work force is attributable to the reclassification of certain active duty guardsman to full-time. There is a clear trend of expanding the guard and reserve by the military because it is cost effective. In late 1987 it was announced that the Alaska National Guard work force would increase by several hundred over the next year.

An important trend in the military work force data is the decrease in the ratio of active duty to civilian employees. For example, in 1980 there were 3.4 active duty personnel for each civilian employee. By 1986 this ratio had fallen to 2.8. The number of civilian personnel rose from 6,676 in 1980 to 8,240 in 1986, an increase of 23% (Table 1). Preliminary data for 1987 shows military civilian employment growth continued into 1987 but at a slower pace. The increase in the number of civilians is a trend consistent with the military's increased practice of hiring civilians to do work that in the past was done by active duty personnel.

Military Payrolls

The military exerts its financial influence on the state in a number of

Table 2
Military Expenditures in Alaska
FFY 1980-1986

(in millions of dollars)

	1980	1981	1982	1983	1984	1985	1986
Payroll	$ 473.0	$ 557.7	$ 617.2	$ 657.9	$ 676.1	$ 725.6	$ 733.2
Military	319.8	390.3	440.6	464.4	469.9	503.1	516.0
Civilian [1]	129.6	146	156.1	168.7	182.1	189.7	181.5
NAf/Exch	23.6	21.4	20.5	24.8	24.1	32.8	35.7
Construction	78.6	94.1	104.8	141.2	135.1	204	180.3
Operations & Maintenance	303.1	308.3	366.5	380	362.6	389.1	493.3
Other Procurement	168.2	194.4	188.5	219	161	136.9	149.5
Total	1022.9	1,154.5	1,277	1,398.1	1,334.8	1,455.6	1,556.3
Retirement payroll [2]						113.1	122.3

Source: Impact of Military Spending on the Economy of Alaska by Alaskan Air Command

[1] Includes Army, Air Force, Navy, Corps of Engineers, National Guard and Coast Guard

[2] Retirement payroll was not available until FFY 1985 and was not included in totals

ways. Military personnel spend part of their paychecks locally, they purchase goods and supplies in the local market, and they employ local contractors for many projects. These funds flow into the economy and either directly or indirectly support thousands of jobs in Alaska.

A study by the Institute of Social and Economic Research shows that the military from 1980 to 1983 accounted for 15% to 17% of all jobs in Alaska. It is likely that this contribution was several percentage points higher in 1987, particularly in light of defense expenditure increases during a period when other sectors were reducing expenditures. From Federal Fiscal Year (FFY) 1983 (October 1982 to September 1983) through FFY 1986 total military expenditures increased by over $200 million dollars to $1.5 billion (Table 2) and significant increases were expected in FFY 1987.

The largest and most direct economic benefit Alaska receives from the military is through its payroll. During FFY 1986 the payroll totalled $733 million and the military estimates that 86% of its payroll is spent in Alaska. Although military personnel may spend a high proportion of their paychecks in Alaska the amount that actually reaches the local economy is less given the self-sufficient nature of military operations.

Many goods and services of the active duty personnel and their dependents are either provided for or can be purchased at discount at the military postal exchanges (PX's) and commissaries. Housing, medical care, child care, and a variety of other services are provided by the military. This insulation factor is greater at remote and isolated installations than at urban installations.

In an urban setting the economy receives the benefit of the incidental spending made by the active duty personnel and their dependents. They may not buy the bulk of their groceries at the local grocery store but they do purchase odds and ends, buy gasoline, go to movies, and engage in many other activities that require spending part of their paycheck.

On a per capita basis the military's civilian employees provide more economic stimulus to the local economy than the active duty personnel. The civilians working on base are not usually given the many benefits received by active duty personnel and their dependents, hence more of their paycheck is spent in the local economy. In addition their paychecks are greater. In 1986 the average earnings of $31,000 of a military civilian employee was over $10,000 more than the average earnings of active duty personnel.

One major benefit received by active duty personnel that offsets the higher earnings of the civilians is off-base housing assistance. This benefit pumps millions of dollars into local housing markets. In Anchorage, for example, it has been estimated that 39% of the active duty personnel lived off base in May of 1987. They received from between $797 to $1,417 a month in housing assistance, depending upon rank. In Fairbanks approximately 30% of active duty personnel live off base. In Kodiak the most current figures show that 312 out of the 1,000 active duty Coast Guard live in off base housing.

Military from 1980 to 1983 acounted for 15% to 17% of all jobs in Alaska.

Military Construction

Military construction projects impact the Alaska economy in a variety of ways depending upon type of construction, but it is estimated by the military that 50% of the total construction budget is spent in Alaska. The amount that actually circulates through the local economy is probably less because the contractors or the suppliers of construction goods usually buy materials from outside sources.

Still, the military's construction projects inject millions of dollars into the economy. The primary input to the Alaskan economy is the utilization of Alaskan workers that spend wages locally. From FFY 1980 to FFY 1986 construction expenditure in Alaska increased twofold, peaking at $240 million in 1985.

Military expenditures for operations and maintenance at their facilities have a greater impact on the local economy than does construction expenditures. Not only is the budget larger, but a higher proportion of the money is distributed into the local economy. Generally, the purchase of services by the military has a greater impact on the local economy than does the purchase of goods. Services are likely to be provided locally whereas goods are usually produced and/or purchased outside of Alaska. The military estimates that 72% of the operations and maintenance expenditures are spent locally. In FFY 1986 that amounted to over $350 million.

Geographic Distribution

From Coast Guard stations in Ketchikan to Distant Early Warning (DEW) sites on the North Slope the military has over 50 installations located across the state. Many have no permanent crew, others are remote and isolated, and some are only staffed by a handful to a couple hundred personnel. Only a relative few have larger concentrations of military personnel.

Generally the larger the installation the larger the surrounding community. Of the 14 installations in 1987 having 100 or more personnel, four contain three-quarters of Alaska's active duty personnel (Table 3) and an even greater share of military's civilian workforce and military's dependent population (Figure 2). The two largest of the installations, Elmendorf Air Force Base (AFB) and Fort Richardson, are located in Anchorage, and the third and fourth largest, Eielson AFB and Fort Wainwright, are located in Fairbanks.

Anchorage is home of the Alaskan Air Command which serves as the senior military organization in the state and is headquartered at Elmendorf AFB. In 1987, 6,700 active duty personnel were stationed at Elmendorf—the highest count in the 1980s. The number of soldiers stationed at Fort Richardson totaled 4,860 in 1987, up 360 from 1986. This is the highest recorded level in the 1980s.

The military's civilian workforce also reached new highs in 1987. Over a

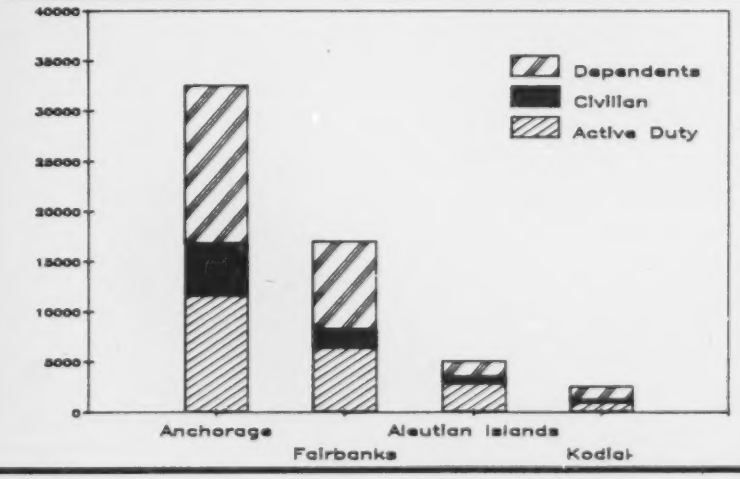
Table 3
Alaska
Station Strength, Active duty
By Census Area
July 1,1980-July 1,1987

	1980	1981	1982	1983	1984	1985	1986	1987
Total Alaska Active Duty	22,704	22,449	22,102	22,267	22,434	23,073	22,953	23,354
Aleutian Islands Census Area	2,213	2,242	2,218	2,194	2,307	2,890	2,847	2,900[1]
Anchorage Borough	11,298	10,833	10,955	10,531	10,904	10,829	10,807	11,700
Bethel Census Area	42	47	43	24	0	0	0	0
Bristol Bay Borough	329	351	344	311	273	300	291	275
Dillingham Census Area	0	0	0	0	0	0	0	0
Fairbanks Northstar Borough	5,481	5,529	5,133	5,841	5,882	5,912	5,938	5,452
Haines Borough	0	0	0	0	0	0	0	0
Juneau Borough	293	357	292	341	368	316	235	223
Kenai Peninsula Borough	67	68	68	72	70	72	77	72
Ketchikan Gateway Borough	203	204	215	182	163	152	211	276
Kobuk Census Area [2]	17	18	17	12	0	0	0	0
Kodiak Island Borough	1,098	1,073	1,010	1,097	921	1,086	1,076	1,000
Matanuska-Susitna Borough	0	0	0	0	0	0	0	0
Nome Census Area	41	43	44	39	29	31	26	31
North Slope Borough	15	16	19	13	0	0	0	0
Prince of Wales-Outer Ketchikan	0	0	0	0	0	0	0	0
Sitka Census Area	174	177	193	201	190	185	195	187
Skagway-Yakutat-Angoon Census Area	0	0	0	0	0	0	0	0
Southeast Fairbanks Census Area	801	810	780	815	784	718	710	689
Valdez-Cordova Census Area	103	103	87	90	94	101	101	96
Wade Hampton Census Area	12	17	15	9	0	0	0	0
Wrangell-Petersburg Census Area	20	21	22	22	13	21	20	23
Yukon-Koyukuk Census Area	497	540	647	473	436	460	419	430

[1] Estimated. Count from Navy was not available at time of publication
Alaska Department of Labor, Research & Analysis, Demographics

[2] Reorganized as Northwest Arctic Borough in 1986.

Figure 2
Military Population: Active Duty, Civilian and Dependents for Selected Areas of Alaska 1987



seven year period the number of military civil service jobs increased from 4,290 to 5,119. The most recent military workforce increases in Anchorage were in response to several events, but most prominent were the activation of 962nd Airborne Warning and Control Squadron (AWACS) in 1984 and the arrival of a new F-15 squadron, and the deployment of the 6th Light Infantry Division in 1987.

The military installations located in **Fairbanks** support a quarter of Alaska's military population and contain over one-fifth of Fairbanks' population. The deployment of the 6th Infantry Division had the largest impact on Fort Wainwright and the Fairbanks area. Though the division was activated in 1986, the impacts on the active duty personnel level at Ft. Wainwright were not realized until 1987 when the ranks increased by 570.

Fort Greely, south of Fairbanks in the Southeast Fairbanks Census Area is the Army's third largest fort in the state. The deployment of the Light Infantry Division has not impacted the personnel levels at Fort Greely. The levels of active duty and military civilian personnel have been stable for the past six years. Overall, the

military accounts for nearly 2,000 people in the area (Table 3), which represents 32% of the area's population.

The Adak Naval Station on remote Adak Island, far out in the **Aleutian** chain, is Alaska's fifth largest military installation. Since the Navy's recent buildup in the Northern Pacific its work force has increased by over 30% from 1980 to 1987. The big increases occurred when the Navy reactivated a full anti-submarine warfare aircraft squadron and an aircraft intermediate maintenance department in 1985. When the military population on Adak is combined with the military population of Shemya AFB near Attu (8th largest military installation in the state) the military accounts for over 55% of the population in the Aleutian Island Census Area.

Kodiak is home to Alaska's sixth largest military installation and largest U.S. Coast Guard installation in Alaska. In fact, it is the largest Coast Guard station in the nation. In 1987 over 20% of Kodiak's population was directly related to the Coast Guard—1,000 active duty, 230 civilian personnel and 1,400 (active duty) dependents. The number of active duty personnel has fluctuated from a high of 1,097 in 1983 to a low of 921 the following year. The number of civil service employees totaled 230 in 1987, down from nearly 300 in 1980.

Additional areas with a significant amount of Coast Guard personnel are **Ketchikan**, **Juneau** and **Sitka**—the 11th, 12th and 13th largest military installations in Alaska. In 1986 the Juneau Coast Guard station workforce was reduced by nearly 100 active duty personnel when the USCGC Planetree was relocated to Ketchikan. This transfer reduced the Coast Guard workforce by one-third in Juneau and increased Ketchikan's by 80%.

Other military installations with 100 or more personnel are Galena (9th largest) and Clear AFB (13th largest) in Alaska's **Yukon-Koyukuk** Census Area and at King Salmon (10th largest) in the **Aleutian Islands** Census Area. These Air Force installations house first line defense Air Force Squadrons. Personnel levels in the Yukon-Koyukuk Census Area peaked in 1982 at 647 and by 1987 had fallen to 430. Elimination of positions at the various DEW sites located throughout the area have been the primary cause of declines.

Impacts of military installations and related spending on a regional or local economy vary considerably. Overall, the impacts of the military are greatest in the urban areas of the state because the remote bases have a greater self sufficiency factor. The communities that appear to benefit the greatest from the military presence in Alaska are Fairbanks, Kodiak, and Anchorage (Table 4).

Future Projects

Predicting the Pentagon's next move

Table 4
Military Expenditure by Census Area
(In millions of Dollars)

	1980 Total	1986 Total
Alaska Total	$762.4	$1,186.6
Aleutian Islands Census Area	89.6	169.2
Anchorage Borough	454.6	457.5
Bethel Census Area	3.1	4.7
Bristol Bay Borough	6.9	11.0
Dillingham Census Area	0.2	0.2
Fairbanks Northstar Borough	143.0	346.7
Haines Borough	0.9	1.0
Juneau Borough	5.1	4.8
Kenai Peninsula Borough [1]	3.7	27.8
Ketchikan Gateway Borough	1.0	1.3
Kobuk Census Area [2]	2.9	2.2
Kodiak Island Borough [3]	0.5	8.5
Matanuska-Susitna Borough	1.4	5.5
Nome Census Area	3.4	6.7
North Slope Borough	5.0	9.6
Prince of Wales-Outer Ketchikan	0.1	0.2
Sitka Census Area	0.3	2.8
Skagway-Yakutat-Angoon Census Area	0.1	0.2
Southeast Fairbanks Census Area	22.4	37.9
Valdez-Cordova Census Area	1.5	1.6
Wade Hampton Census Area	0.7	0.0
Wrangell-Petersburg Census Area	0.0	0.4
Yukon-Koyukuk Census Area [4]	16.9	87.0

Source: Federal Expenditures by state for FFY 1986 and Geographical Distribution of Federal Spending in Alaska FFY 1980.

[1] 1986 military expenditures included $24 million in procurement contract awards

[2] Reorganized as Northwest Arctic Borough in 1986.

[3] Change in military expenditures from 1980 to 1986 are mostly due to how Department of Defense Procurement Contract Awards through the Coast Guard were recorded.

[4] 1986 military expenditures included $75 million in Procurement contract awards.

(Note: these total expenditures do not match those in table 2 because non-appropriated and most Coast Guard funds are not included).

Predicting the Pentagon's next move in Alaska is virtually an impossible task.

in Alaska is virtually an impossible task. Some analysts predict that mounting federal deficits will eventually inhibit the Defense Department's ability to grow. Other analysts believe that Alaska is again becoming a location of growing strategic importance because of the Soviet Union's expanding presence in the Pacific, insuring future defense expansion in the state. Notwithstanding this type of speculation, there are a number of projects the Defense Department already has planned which will impact the state's economy.

The deployment of the 6th Light Infantry Division at Fort Wainwright near Fairbanks is the single largest undertaking. Although the activation of the brigade began this year, the deployment will not be completed until 1992. An additional 3,564 soldiers and 300 civil service jobs will be in place at Fort Wainwright, and an additional 300 uniformed personnel will be deployed at Fort Richardson in Anchorage by 1992.

Construction activity on Fort Wainwright will accompany the deployment of the brigade. The Fairbanks North Star Borough's Community Research Center estimates the construction work force will reach 585 in 1988 and peak at 755 in 1989. The Center has also estimated that deployment of the division will create an additional 1490 direct and indirect nonmilitary jobs in Fairbanks by 1992.

The deployment of the division will reverse the diminishing military role in Fairbanks; bringing the area's total military strength up to levels of the late 1960s and early 1970s. But its relative importance to Fairbanks' economy will not reach historical levels because the local economy has broadened considerably since the discovery of oil in Prudhoe Bay.

Another sizeable military undertaking will be the construction and operation of a $450 million over-the-horizon backscatter radar system. This radar will give the Air Force the ability to provide long-range surveillance of aircraft and missiles. Construction of the radar will take place in the vicinity of the Interior communities of Tok (the receiver site) and Gulkana (the transmitter site). Road work is planned for 1988 with a peak construction work force of 350 by 1989-1990. The project is expected to go into operation by 1992. Approximately 60 operations personnel will be stationed in both Gulkana and Tok (30 civilians and 30 military personnel). An additional 315 people will operate the backscatter's operational center at Elmendorf AFB (expected to be mostly military personnel).

New radar systems in Alaska do not end with the backscatter: major work is being performed on two other systems. Alaska's DEW line (Defense Early Warning System) is being modernized. Seven of the 31 DEW line sites are located in Alaska. The total cost of the project, which includes the sites in Canada, is $1.65 billion. The project is expected to be completed by 1992 with fewer personnel needed to run the sites. Presently the majority of these personnel are private contract workers.

On Amchitka Island, in the Aleutians, the Navy is building an over-the-horizon backscatter radar. Work began on the Amchitka radar in May, and presently the work force on this project has reached 140. The completion date is expected to be the summer of 1988.

In addition to Adak, the number of Navy ships visiting Alaska ports has been on the increase. Over the past two years there have been numerous unsubstantiated rumors in a number of communities that the Navy is planning to establish a new naval station in Alaska. What might lend more credence to these rumors now is the fact that Alaska's Senator Stevens announced that he had invited the Navy to assess any potential new home ports in Alaska for Navy vessels. The Navy toured the state in late October. Ketchikan has also been mentioned for the location of a submarine test facility.

On the down side the Kodiak Coast Guard Station may be experiencing major personnel changes during the next three to six months which will result in some cutbacks in staffing. A contract will be awarded soon to take over the maintenance of the station. Up to now, 220 uniformed and civil service personnel (almost equal in number) performed this work. The affected Coast Guard personnel will be reassigned to new positions in Kodiak

Table 5
Defense Expenditures and Active Duty Military
By State
1986

	Per Capita Defense Expenditures	Per Capita Defense Procurement Contracts	Defense Wages & Salaries	Active Duty Military by State	Ratio of Resident Population/ Active Military
U.S.	$ 939	$ 613	$ 127	1,366,866	175
Alabama	841	392	173	23,096	174
ALASKA	2,223	1,062	525	20,375	26
Arizona	1,172	791	122	20,704	154
Arkansas	621	374	76	9,748	242
California	1,494	1,038	179	204,822	129
Colorado	1,080	579	178	36,914	88
Connecticut	1,880	1,703	70	6,526	486
Delaware	676	355	118	4,662	133
District of Columbia	2,766	1,222	736	12,710	49
Florida	888	485	125	73,140	155
Georgia	1,055	575	192	64,390	93
Hawaii	2,341	530	833	46,973	22
Idaho	305	62	80	5,647	178
Illinois	304	150	65	40,874	282
Indiana	602	451	61	6,576	836
Iowa	263	204	17	399	7,228
Kansas	1,156	792	149	23,627	104
Kentucky	479	144	144	40,782	91
Louisiana	566	333	85	25,710	174
Maine	782	498	99	5,382	216
Maryland	1,589	1,016	235	35,687	123
Massachusetts	1,652	1,498	58	9,417	618
Michigan	347	257	34	8,773	1,036
Minnesota	616	546	22	859	4,881
Mississippi	990	624	142	16,029	163
Missouri	1,343	1,095	97	16,072	313
Montana	291	76	75	3,728	222
Nebraska	480	141	135	12,794	126
Nevada	573	147	126	9,744	96
New Hampshire	920	459	183	4,122	242
New Jersey	619	423	81	18,974	399
New Mexico	946	381	216	16,421	88
New York	635	557	31	21,982	809
North Carolina	606	165	176	98,702	63
North Dakota	760	338	194	11,274	61
Ohio	644	484	65	13,815	778
Oklahoma	726	235	200	31,115	106
Oregon	255	126	31	782	3,436
Pennsylvania	548	357	79	6,711	1,765
Rhode Island	764	403	146	4,037	240
South Carolina	810	154	262	44,373	75
South Dakota	464	180	116	5,854	121
Tennessee	403	237	48	10,991	433
Texas	1,013	649	128	127,176	129
Utah	1,012	484	236	6,172	267
Vermont	347	228	32	74	7,230
Virginia	2,347	934	598	96,588	59
Washington	1,122	566	209	43,669	101
West Virginia	137	54	22	441	4,390
Wisconsin	278	204	26	912	5,236
Wyoming	466	182	109	3,747	136

Sources: U.S. Department of Commerce, Bureau of Census, Federal Expenditures by State for Fiscal Year 1986.
Statistical Abstract of the United States, 1987.

Note: Active duty military data is based on Federal Fiscal Year 1985.

or to other facilities, and some of the civilians may be hired by the contractor, but they expect there will be a net loss in positions. The savings to the military will be primarily in the form of lower wages and benefits. The impact to the economy is unclear but local spending should increase since the contractor's employees will not receive the benefit of the military commissary and other support.

Projecting military activities is a particular challenge because neither the state's nor the nation's economy dictates future trends as much as national and international politics. Budgets from one year to the next are never assured but given the military's intentions as presented above, its presence in Alaska will undoubtedly grow during the next two to three years. The deployment of the Light Infantry Division in Fairbanks alone guarantees this and other evidence suggests a growing military presence. In some industries such as construction, defense related projects may represent the major impetus for growth. In communities such as Fairbanks, Tok and Gulkana the military presence may mean the difference between a shrinking or growing economy.

In 1986 military retirement benefits paid to Alaskans totaled $58 million.

A National Comparison

In defense dollars received by states in FFY 1986, Alaska ranks only 36th but given our population base, the military's presence in Alaska is one of the most prominent in the nation. There is one active duty military person for every 175 people in the nation, compared to a ratio of 26 people for every active duty military person in Alaska. Alaska is second only to Hawaii in the number of soldiers on a per capita basis.

The level of expenditures clearly illustrates how pervasive the military's presence is in Alaska. Defense dollars per capita spent in Alaska are over twice as high as the national average, fourth highest among states. Alaska is fifth highest when ranking the value of procurement contracts on a per capita basis, although Alaska manufactures little or no military hardware. Military procurement in Alaska represents only the amount spent to provide supplies, services and construction.

For wages and salaries paid by the Department of Defense the numbers become more striking. Including uniformed and military civilians, Alaska receives four times the amount in wages and salaries on a per capita basis as the national average $525 versus $127. The proportionately larger military presence explains most of the difference but cost of living adjustments for military civil service workers and the active duty personnel provides an additional boost to Alaska's wages. Federal civil service workers in Alaska receive a tax free 25% cost of living adjustment and the uniformed soldiers receive a cost of living adjustment which varies according to their rank.

Even after the military personnel leave the service, a portion of their retirement and disability dollars continues to be spent in the economy. In 1986 miliary retirement benefits paid to Alaskans totaled $58 million, which represents $108 for every Alaskan. This figure is 49% higher than the national average and puts Alaska in tenth place among the states.

Between 1980 and 1985 the number of uniformed military in Alaska and the nation has grown a little less than 1%, while the civilian military work force has not been quite as stagnant. Alaska's military civilian work force grew slightly more rapidly than the nation's, 14% versus 12%. Defense expenditures in the nation have grown slightly faster than in Alaska, growing 48% compared to 41% in Alaska. (These figures represent FFY 1981-1986 and are not adjusted for inflation). This trend could be reversed in the near future because of planned defense expenditures in the state.

Conclusion

Since Alaska "exports defense" to the rest of the nation it in turn receives economic benefits from the military through the millions of doliars in wages and other expenditures in the state. Although the military's economic might in the 1980s is not what it was in the 1950s and 1960s, its influence was on the increase by the mid 1980s.

Impacts of military installations on a regional or local economy vary considerably, but overall, the impacts are greatest in the urban areas of the state because the remote bases have a greater self-sufficiency factor, which insulates it from the local economy. Hence, the communities that appear to benefit the greatest from the military in Alaska are Fairbanks, Kodiak and Anchorage, where over three-quarters of the military's population is located.

In 1987, the military accounted for over 13% of Alaska's population. This represented some 62,000 people located in over 50 installations from Ketchikan to Barrow. Of these, 14 installations had 100 or more personnel with the largest located in Anchorage, Fairbanks, Adak, and Kodiak.

While other economic factors were on the decline the military population and expenditures were on the increase. Because of Alaska's strategic location it is likely that the military's economic influence will continue to increase through the decade.

Federal Government Occupations in Alaska

By James Wilson

The federal government is one of the largest employers in Alaska. Roughly 18,000 people (excluding military but including civilian military) are employed in a wide range of occupations. Federal employees work in every area of the state. The skill level of people employed by the federal government ranges from laborers and clerical workers to technicians and scientists.

Applying for Federal Jobs

The United States Office of Personnel Management, located in Anchorage, is the agency responsible for processing applications of persons seeking employment with federal government agencies. With some exceptions all the processing of applications for employment and the evaluation and testing of applicants is done in that office. The Coast Guard and Forest Service offices in Juneau have been granted limited authority to test and evaluate applicants. A clerical skills test is given weekly in Juneau.

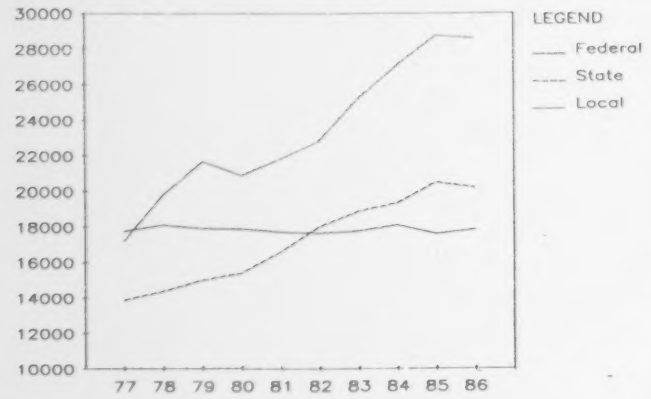
Table 1
Federal Civilian Employment in Alaska
Occupations with 100 or more persons
October 1986

Occupational Title	Workers
Traffic, shipping, and receiving clerks	723
All other secretaries	593
All other professional, paraprofessional and technical workers	578
All other helpers, laborers, material movers.	555
Airplane dispatchers and air traffic controllers	539
Mail carriers, postal service	481
All other clerical & admin support workers	411
Biological scientists	393
Typists	388
Registered nurses	302
Clerks, postal service	283
Stock clerks - stockroom, warehouse or storage yard	278
Bookkeeping, accounting, and auditing clerks	254
Electrical/electronic engineering technicians and technologist	251
Civil engineers, including traffic	237
All other legal assistants and technicians, except clerical	234
Maintenance repairers, general utility	232
First line supervisors - clerical & admin support	221
All other engineering and related technicians and technologist	210
General office clerks	201
Postmasters and mail superintendents	194
Purchasing agents, exc wholesale and retail trade and farm	189
Geologists, geophysicists, and oceanographers	177
Compliance officers/enforcement inspectors, except construction	175
First line supervisors - mechanics, installers	170
Forest and conservation workers	162
Personnel, training, and labor relations specialists	151
Tax examiners, collectors and revenue agents	148
Foresters and conservation scientists	148
All other physical and life science technicians and technologists	146
Carpenters	138
Personnel clerks, except payroll and timekeeping	124
Operating engineers	122
Mobile heavy equipment mechanics, except engines	121
Systems analysts, electronic data processing	118
Biol, agric, and food technicians and technologists, exc health	116
All other motor vehicle operators	105
Plumbers, pipefitters and steamfitters	102
Accountants and auditors	100

Source: U.S. Dept. of Labor, Occupational Employment Statistics.

People interested in federal employment can begin by contacting the Federal Job Information Center, 701 "C" Street, Box 22, Anchorage, Alaska 99513. A recorded informational message can be called at (907) 271-5821. The Job Information Center is open for limited hours: Tuesday through Thursday from 11:00 am to 1:00 pm. Individual personal phone service is available by calling (907) 271-3617.

Figure 1
Government Employment in Alaska
Annual Average for 1977 to 1986



Individuals are hired for federal positions from registers of eligible applicants. To begin, a person should find out which positions have vacancies. One source of this information is the federal job opportunities list, produced regularly by the Office of Personnel Management. Applicants may apply for positions during the filing period posted for each job title.

Once the application form has been submitted it is evaluated and the individual is given a score which determines their rank on the list. Written tests are required for many positions. Persons who are certified as eligible for positions are encouraged to contact the individual agencies regarding specific positions. Each agency does its own hiring from the register of applicants.

Federal Government Occupations

The occupations with 100 or more persons are listed in Table 1. The proportion of professional and technical jobs and production, construction, and operating occupations in Alaska are compared to the national levels in Figure 1.

Most major departments of the executive branch of the federal government are represented in Alaska (Table 2). It is the armed forces, however, which employ the greatest number of civilian workers. Although federal workers are employed in every area of the state the great majority of them are located in Alaska's major urban centers (Table 3). Nearly one half of the federal employees are civilians working for the armed forces.

Job openings will result both from employee turnover and the needs of a slowly growing workforce. For some occupations, opportunities exist nationwide while they may be somewhat limited in Alaska. Table 4 is an extract of some job listings from the October 13 Federal Job Opportunities List.

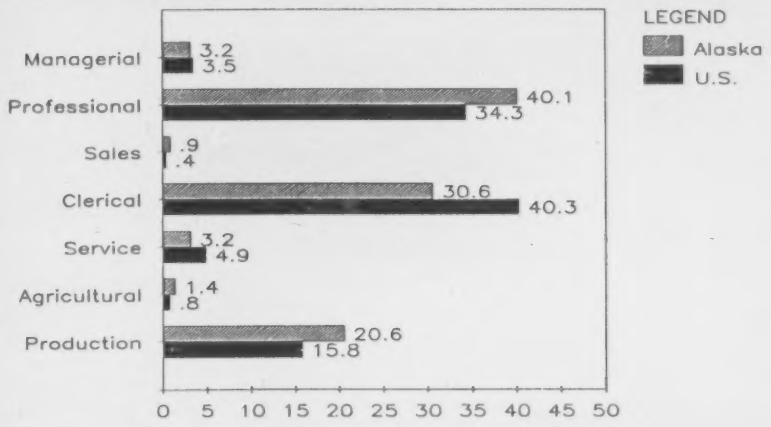
Table 2
Annual Average Federal Civilian Employment
by Federal Agency
Alaska 1986

Agency	1985	1986	1986 Percent of Total
Army	3,714	3,875	22.0
Air Force	2,563	2,591	14.7
Interior	2,380	2,280	13.0
U.S. Postal Service	1,979	2,169	12.3
Transportation [1]	1,631	1,576	9.0
Health & Human Services	1,422	1,248	7.1
Agriculture	1,081	1,048	6.0
Army & Air Force Exchange	880	906	5.2
Navy	538	550	3.1
Commerce	437	406	2.3
Treasury	308	333	1.9
Veterans Administration	136	139	0.8
General Services Administration	118	117	0.7
Justice	86	100	0.6
United States Courts	59	63	0.4
Defense, not Armed Forces	62	53	0.3
Housing & Urban Development	47	49	0.3
Small Business Administration	30	30	0.2
Office of Personnel Management	20	21	0.1
Labor	13	14	0.1
FCC	10	13	0.1
National Labor Relations Board	5	6	0.0
General Accounting Office	5	3	0.0
Interstate Commerce Commission	1	1	0.0
Total	17,524	17,592	100.0

[1] Includes Coast Guard
Source: Alaska Dept. of Labor, ES202.

Figure 2

Percent Distribution of Federal Employment by Occupationl Group Alaska & U.S. October 1985



Most major departments of the executive branch of the federal government are represented in Alaska.

Table 3
Annual Average Federal Civilian Employment in Alaska by Census Area

Area	1985	1986	Armed Forces 1986[1]	Other Agency 1986
Anchorage Borough	9,860	10,013	5,080	4,933
Fairbanks Northstar Borough	2,738	2,810	1,810	1,000
Juneau Borough	1,039	1,051	0	1,051
Aleutian Islands	694	691	617	74
S.E. Fairbanks	388	388	344	44
Sitka Borough	353	309	0	309
Bethel	349	291	0	291
Ketchikan Gateway Borough	282	269	0	269
Yukon-Koyukuk	224	229	43	186
Kodiak Island Borough	242	239	0	239
Kenai Peninsula Borough	207	210	1	209
Skagway-Yakutat-Angoon	110	114	0	114
Wrangell/Petersburg	171	161	0	161
Northwest Arctic Borough	130	120	0	120
Valdez-Cordova	80	81	0	122
North Slope Borough	132	117	57	59
Prince of Wales - Outer Ketch	111	114	0	114
Mat-Su Borough	99	101	0	101
Nome	110	94	0	94
Dillingham	85	82	2	80
Bristol Bay Borough	75	71	20	51
Wade Hampton	37	28	0	28
Haines Borough	9	9	0	9
TOTAL	17,524	17,592	7,974	9,618

[1] The Coast Guard as part of the Department of Transportation is included in the other agencies category. This differs from the two previous articles.

Source: Alaska Dept. of Labor, ES202 files.

Federal Wages

The starting salaries for federal workers in Alaska is presented in Table 5. In Alaska federal workers are provided an additional 25% above the standard federal salary schedule. This cost of living allowance (COLA) is intended to adjust rates of pay for the higher cost of living in Alaska. A separate hourly wage schedule has been established for trade and craft workers covered under the Department of Defense Wage Fixing Authority. The starting wage rates range from $12.51 to $22.24 per hour.

According to the Alaska Department of Labor's *Statistical Quarterly* the average monthly wage earned by Alaska's federal workers in 1986

Table 4
Selections from the Federal Job Opportunities Listing
Anchorage Area Office, October 13, 1987

Job Title	Grade	Location	Vacancies
Accountant/Auditor	GS-5/9	Worldwide	Many
Air Traffic Controller	GS-7	Nationwide	Many
Clerk	GS-2/3/4	Alaska	Few
Clerk-Typist	GS-2/3/4	Alaska	Few
Computer Specialist	GS-9/12	Alaska	Few
Customs Inspector	GS-5/7	Worldwide	Many
Data Transcriber	GS-2/3	Alaska	Few
Diagnostic Radiologic Tec	GS-5/7	Alaska	Some
Engineer, Professional	GS-5/13	Alaska	Some
Medical Technologist	GS-5/7/9	Alaska	Some
Nurse, Registered	GS-5	Alaska	Few
Pharmacist	GS-9/12	Nationwide	Many
Physician's Assistant	GS-7/11	Nationwide	Many
Secretary	GS-4/5/6	Alaska	Many
Telephone Operator	GS-3	Alaska	Few

Table 5
Federal Annual Starting Salary Schedule for General Service
Including 25% COLA for Alaska

Grade	Hourly	Yearly
GS-1	$5.76	$12,024
GS-2	6.48	13,520
GS-3	7.06	14,752
GS-4	7.93	16,560
GS-5	8.88	18,528
GS-6	9.89	20,651
GS-7	10.99	22,948
GS-8	12.18	25,416
GS-9	13.45	28,073
GS-10	14.80	30,915
GS-11	16.26	33,965
GS-12	19.50	40,709
GS-13	23.19	48,409
GS-14	27.40	57,204

($2,348) was virtually the same as for the private sector ($2,345) but less than state ($2,887) or local ($2,617) government workers. However, one fifth of the federal "Wage" which is provided as COLA (cost of living allowance) is nontaxable income. This means, for example, that a federal worker who was paid $30,000 a year would receive $6,000 tax free. This could translates into a tax savings of roughly $1,600 compared to other workers earning $30,000.

Summary

Federal employment has been a stable force in the Alaskan economy for many years. Federal workers are employed in a wide range of occupations in all areas of the state. The military is the largest civilian employer within the federal government in Alaska. Federal government employment has historically been stable with the number of workers growing in the last few years. Job opportunities will result from normal employee turnover and a slowly growing workforce. Although the average wage paid to federal workers in Alaska is less than for state and local government workers there is the very real benefit of receiving a portion of the wage free of tax. Job opportunities with the federal government are nationwide in many occupations. Persons seeking employment with the federal government should contact the U.S. Office of Personnel Management in Anchorage.

Alaska's Employment Scene

By Edward Eboch

As we enter the second year of Alaska's recession, attention centers on the price of oil and the state budget forecast. Now we can also begin to worry about the impact the stock market collapse will have on the state's economy. With the federal government an important source of jobs in Alaska, will pressure to cut the federal budget deficit mean cutbacks in federal spending in Alaska? Will a recession mean less oil consumption and therefore lower prices for oil?

More than ever the price of oil will determine the direction of Alaska's economy, at least in the short run. Although the price of oil has remained above the price used by the Alaska Department of Revenue in its September revenue forecast, expectations about oil prices were for a lower price of oil even before the current concerns about the economy. Even if the price of oil remains at current levels, or increases, what can we expect for Alaska's economy next year?

For all practical purposes the higher price of oil will have little effect in turning around the downward drift of the economy until late next year or the year after. Both oil companies and the State can be expected to react cautiously to improved oil prices. Oil companies would expand slowly until they have some assurance that any higher price for oil would be permanent. The budget for the state fiscal year 1989 (July 1 1988 to June 30 1989) will not be decided until late spring 1988 and would not impact the economy until late next year.

While the current situation does not look promising, the long term future of Alaska remains bright. Metal mining, forestry, and tourism are strong and appear to be growing. As the excesses of the last few years are wrung out of the economy, the price of oil firms up over time, and other projects are put in the works the rebound may catch us all unprepared.

Current Employment

September is the traditional month for seasonal adjustments in employment by many Alaska industries (Table 1). Local school districts and the University system begin classes, the peak salmon runs end, and the tourist season is customarily over. The result is a lower unemployment rate (Table 9), even though employment falls as temporary seasonal employees leave the state and students return to school.

Manufacturing employment, mostly fish processing, was down significantly as peak salmon runs ended. Employment in the fish processing industry remained flat over-the-year despite increases in bottomfish and crab catches. Over-the-year losses in fish processing employment in the Southeast (Table 6), where dry weather appeared to keep the salmon in deeper water, offset gains in employment in the Gulf Coast (Table 7) and Southwest regions. Small losses in the forest products and other manufacturing segments occurred with most of the employment loss in other manufacturing concentrated in construction related businesses.

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

	p/ 9/87	r/ 8/87	9/86	Changes From: 8/87	9/86
Nonag. Wage & Salary	219,800	224,300	230,600	-4,500	-10,800
Mining	8,300	8,400	9,100	-100	-800
Construction	13,600	14,700	16,400	-1,100	-2,800
Manufacturing	15,200	19,900	15,100	-4,700	100
Food & Kindred Prod.	8,800	13,400	8,800	-4,600	0
Lumber & Paper Prod.	3,300	3,400	3,000	-100	300
All Other Mfg.	3,100	3,100	3,300	0	-200
Trans. Comm. & Utilities	19,000	19,300	19,500	-300	-500
Trucking & Whseing.	2,200	2,200	2,300	0	-100
Water Transportation	1,400	1,500	1,600	-100	-200
Air Transportation	5,700	6,100	5,500	-400	200
Other Trans. Comm. & Utilities	9,700	9,500	10,100	200	-400
Trade	43,400	44,100	45,600	-700	-2,200
Wholesale	7,700	7,700	7,900	0	-200
Retail	35,700	36,400	37,700	-700	-2,000
Gen. Mer. & Apparel	5,500	5,600	5,400	-100	100
Food Stores	6,200	6,100	6,200	100	0
Eating & Drinking Pl.	13,200	13,800	14,400	-600	-1,200
Other Retail Trade	10,800	10,900	11,700	-100	-900
Finance-Ins. & R.E.	11,700	11,700	12,600	0	-900
Services & Misc.	42,300	43,400	44,800	-1,100	-2,500
Government	66,300	62,800	67,500	3,500	-1,200
Federal	18,800	18,800	18,400	0	400
State	19,100	17,700	20,000	1,400	-900
Local	28,400	26,300	29,100	2,100	-700

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1986.

p/ Denotes Preliminary Estimates.

r/ Denotes Revised Estimates.

While the current situation does not look promising, the long term future of Alaska remains bright.

Table 2
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/ 9/87	r/ 8/87	9/86	Changes From: 8/87	9/86
Nonag. Wage & Salary	104,450	105,800	111,150	-1,350	-6,700
Mining	3,350	3,350	3,400	0	-50
Construction	7,300	7,950	8,750	-650	-1,450
Manufacturing	2,900	3,400	3,000	-500	-100
Food & Kindred Prod.	1,100	1,550	1,100	-450	0
Other Mfg.	1,800	1,850	1,900	-50	-100
Trans. Comm. & Utilities	9,300	9,550	9,900	-250	-600
Trucking & Whseing.	1,450	1,500	1,500	-50	-50
Water Transportation	250	300	350	-50	-100
Air Transportation	2,950	3,100	3,050	-150	-100
Other Trans. Comm. & Utilities	4,650	4,650	5,000	0	-350
Trade	24,550	24,950	26,250	-400	-1,700
Wholesale	5,450	5,550	6,000	-100	-550
Retail	19,100	19,400	20,250	-300	-1,150
Gen. Merchandise	1,900	1,850	1,900	50	0
Food Stores	3,100	3,050	3,050	50	50
Eating & Drinking Pl.	7,550	7,750	8,150	-200	-600
Other Retail Trade	6,550	6,750	7,150	-200	-600
Finance-Ins. & R.E.	7,500	7,550	8,150	-50	-650
Services & Misc.	23,700	24,100	25,100	-400	-1,400
Government	25,850	24,950	26,600	900	-750
Federal	10,750	10,800	10,400	-50	350
State	6,750	6,100	7,300	650	-550
Local	8,350	8,050	8,900	300	-550

Table 3
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/ 9/87	r/ 8/87	9/86	Changes From: 8/87	9/86
Nonag. Wage & Salary	110,950	112,300	118,350	-1,350	-7,400
Mining	3,350	3,350	3,450	0	-100
Construction	7,650	8,350	9,250	-700	-1,600
Manufacturing	3,000	3,550	3,100	-550	-100
Trans. Comm. & Utilities	10,000	10,250	10,650	-250	-650
Trade	26,100	26,600	27,800	-500	-1,700
Finance-Ins. & R.E.	8,050	8,100	8,700	-50	-650
Services & Misc.	24,800	25,250	26,400	-450	-1,600
Government	28,000	26,850	29,000	1,150	-1,000

Seasonal adjustments also hit the **construction** industry. As winter approaches, warm weather projects end and new projects are put off until the following spring. While construction employment is at its lowest September level since 1979 and only half that of 1983 and 1984, it still represents a healthy 6.2% of nonagricultural wage and salary employment, well above the national average.

According to *Alaska Construction and Oil* magazine the year-to-date (January through August) value of contracting is approximately half that of 1986. This does not bode well for the construction industry over the near term.

As the tourist season ends we usually see declines in employment in both the **trade** and **service** industries. Big employment losers in trade include eating and drinking places and general merchandising and apparel stores. Losses in hotels and recreation services were major contributors to losses in the service sector. All these sectors, however, are indicating growth over the previous year, which along with other evidence, suggests that Alaska is becoming successful in extending its tourist traffic into the September/October "shoulder" season.

One interesting aspect of the employment numbers is the over-the-year strength in **food store** employment. In light of the loss in population and loss in restaurant employment, this suggests that local residents are eating out less or substituting a trip to the local grocery stores deli or salad bar, a relatively new but rapidly expanding feature of food stores. The restaurant business can expect continued difficult times as the tourist season ends and the economy continues to decline.

Offsetting the seasonal decreases in most industries was the increase in **government** employment as local schools and the University of Alaska started the school year. An increase in employment of over 4,100 in state and local education offset a decline of 600 in local noneducational employment and a decline of 100 in state noneducational employment over-the-month.

While the **federal government** work force has remained fairly constant over time there has been a dramatic shift from nonmilitary employment to military related employment. The proposed cutbacks in military programs could curtail one of Alaska's growth industries. (See the articles in this publication.)

Other Industries

Mining employment was steady over the month. Small gains in oil and gas

employment were offset by equally small losses in metal mining employment. The over-the-year loss in mining employment is concentrated in the oil and gas industry, primarily in the Northern region. Metal mining employment was up significantly over the year but from such a small base it only offset a small portion of the employment losses in oil and gas.

Much of the impact of the decline in mining employment will be felt in the Interior and Anchorage/MatSu Regions. Many goods and services provided to the oil companies are provided by firms in the urban communities of Anchorage and Fairbanks. In addition, people who show up as employed in the Northern Region live in other regions of the state so the impact of lost wages are felt in these regions.

The **transportation, communication, and public utility** (TCPU) industry also suffered over-the-month losses as changes in the seasonal industries had their impact. Air transportation and local passenger transportation (other TCPU) adjusted employment downward with the end of the tourist season, although increases in school bus drivers offset some of the drop in other TCPU.

With the exception of real estate related firms, the **finance insurance, and real estate** industry is not impacted much by seasonal swings in the economy. With the real estate markets in the doldrums, real estate and management investment firms haven't found it necessary to make seasonal cuts in employment as the industry is lean and mean.

After years of robust growth, we are beginning to see some weakness in the **health service** sector. With the exception of a few tourist related services this is the last of the secondary sectors to be impacted by the downturn. Other services and trade sectors that indicate growth from last year are below the levels of employment reached in 1985 suggesting the bottom in the economic downturn may not be far off.

Table 4
Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

	p/ 9/87	r/ 8/87	9/86	Changes From: 8/87	9/86
Nonag. Wage & Salary	26,850	26,850	29,300	0	-2,450
Mining	150	150	150	0	0
Construction	2,250	2,150	2,600	100	-350
Manufacturing	600	600	650	0	-50
Trans. Comm. & Utilities	2,750	2,800	2,850	-50	-100
Trucking & Whseing.	350	350	350	0	0
Air Transportation	950	1,000	1,000	-50	-50
Other Trans. Comm. & Utilities	1,450	1,450	1,500	0	-50
Trade	5,500	5,650	6,350	-150	-850
Wholesale	850	850	950	0	-100
Retail	4,650	4,800	5,400	-150	-750
Gen. Mer. & Apparel	500	550	550	-50	-50
Food Stores	700	700	800	0	-100
Other Retail Trade	3,450	3,550	4,050	-100	-600
Finance-Ins. & R.E.	950	1,000	1,100	-50	-150
Services & Misc.	5,550	5,850	6,150	-300	-600
Government	9,100	8,650	9,450	450	-350
Federal	2,950	3,050	2,950	-100	0
State	3,750	3,250	3,800	500	-50
Local	2,400	2,350	2,700	50	-300

Table 5
Nonagricultural Wage and Salary Employment
By Place of Work
Interior

	p/ 9/87	r/ 8/87	9/86	Changes From: 8/87	9/86
Nonag. Wage & Salary	31,300	31,100	33,750	200	-2,450
Mining	300	300	300	0	0
Construction	2,450	2,400	2,600	50	-150
Manufacturing	600	600	700	0	-100
Trans. Comm. & Utilities	3,150	3,200	3,250	-50	-100
Trade	5,900	6,100	6,750	-200	-850
Finance-Ins. & R.E.	1,000	1,050	1,150	-50	-150
Services & Misc.	6,250	6,550	6,800	-300	-550
Government	11,650	10,900	12,200	750	-550

Alaska State Chamber of Commerce

Attending the annual meeting of the Alaska State Chamber of Commerce was a reminder that current statistics do not always paint a good picture of Alaska's economy and do not always give readers the best advice on where the economy is heading in the longer term. Most plans for new or expanded businesses usually take several months to several years to develop. Looking at just current statistics won't provide the information that may be important in business planning decisions. Those that failed to attend missed an opportunity to gain in-

Table 6
Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

	p/ 9/87	r/ 8/87	9/86	Changes From: 8/87	9/86
Nonag. Wage & Salary	30,300	30,900	31,400	-600	-1,100
Construction	1,150	1,200	1,450	-50	-300
Manufacturing	4,850	5,450	4,950	-600	-100
Food & Kindred Prod.	1,550	2,100	2,000	-550	-450
Lumber & Paper Prod.	3,100	3,150	2,750	-50	350
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	2,400	2,550	2,400	-150	0
Trade	4,750	4,900	4,750	-150	0
Wholesale	350	400	350	-50	0
Retail	4,400	4,500	4,400	-100	0
Finance-Ins. & R.E.	1,200	1,200	1,200	0	0
Mining, Services & Misc.	4,500	4,550	4,650	-50	-150
Government	11,450	11,050	12,000	400	-550
Federal	2,200	2,200	2,200	0	0
State	5,000	4,950	5,350	50	-350
Local	4,250	3,900	4,450	350	-200

Table 7
Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

	p/ 9/87	r/ 8/87	9/86	Changes From: 8/87	9/86
Nonag. Wage & Salary	20,100	22,750	21,100	-2,650	-1,000
Mining	800	800	900	0	-100
Construction	1,100	1,200	1,500	-100	-400
Manufacturing	4,250	6,650	4,000	-2,400	250
Food & Kindred Prod.	3,650	6,050	3,400	-2,400	250
All Other Mfg.	600	600	600	0	0
Trans. Comm. & Utilities	1,300	1,300	1,400	0	-100
Trade	3,600	3,750	3,750	-150	-150
Wholesale	600	600	650	0	-50
Retail	3,000	3,150	3100	-150	-100
Finance-Ins. & R.E.	600	650	700	-50	-100
Services & Misc.	3,200	3,500	3,400	-300	-200
Government	5,250	4,900	5,450	350	-200
Federal	600	600	650	0	-50
State	1,600	1,450	1,650	150	-50
Local	3,050	2,850	3,150	200	-100

sights that could be useful in their future business plans.

While there was optimism about many areas of the economy, two areas of development appear especially promising for future growth—metal mining and tourism. With improved metal prices, mining companies, in many cases in concert with Native corporations, are actively exploring and reviewing for potential development a number of mineral prospects. The Native corporations participation in these mining prospects, including oil and gas, have important long term benefits to the state.

The regional corporations have the mineral rights to both regional and village corporation lands. The profits from the development of minerals are shared by all the Native corporations. Revenues to the village native corporations are likely to be given to the share holders as dividends or invested locally. Profits from the Red Dog mine and from the Endicott oil field will filter through to Alaska Natives in the form of dividends and jobs. The net effect should be stronger local economies and a stronger more diverse state economy.

Besides the general strength of the tourist industry there are several projects under way to enhance Alaska as a winter tourist destination. Combined efforts from the tourist industry, Alaska's Tourism Division, and the Yukon are beginning to pay dividends to the industry. With Anchorage selected as the United States city to bid on the 1994 Winter Olympics Games, recognition of Alaska (and the Yukon) as a potential winter destination has been increasing to the extent that Austrian and Japanese investors are interested in developing both winter and summer resort areas.

The general theme of the meeting was positive, suggesting that Alaska's business leaders are confident that Alaska will soon recover from the current economic difficulties and experience long term growth. Plan now for next years meeting in Sitka.

September's employment approached 1982 level for the first time since the downturn began in late 1985. A look at the graph of Alaska employment by month from 1982 to the present suggests that the rest of 1987's employment will be near 1982 levels. While the graph of 1986 and 1987 employment appear flatter than earlier years the seasonal nature of employment has not changed. The growth of the economy along with the seasonal growth in the early 1980s had employment increasing faster from the beginning of each year and declining less later in the year. Now the decline in the economy is having the opposite effect, employment is growing slower than the normal seasonal growth and the decline exaggerates the fall and winter decline. Perhaps the first sign of a rebound will be a shift back to an employment curve similar to that of the early 1980s.

Figure 1

AlaskaEmployment 1982 – September 1987

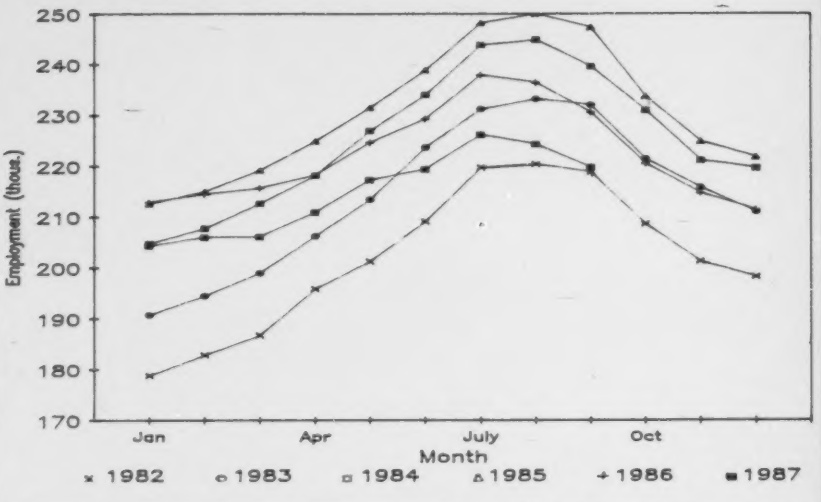


Table 8
Alaska Hours and Earnings for Selected Industries 1/2

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 9/87	R/ 8/87	P/ 9/86	R/ 9/87	P/ 8/87	R/ 9/86	9/87	8/87	9/86
Mining	1,090.77	1,064.53	1,170.43	48.2	48.3	50.8	22.63	22.04	23.04
Construction	957.31	1,115.27	1,183.43	38.4	44.7	46.3	24.93	24.95	25.56
Manufacturing	502.83	504.99	422.80	39.1	45.7	35.0	12.86	11.05	12.08
Food & Kindred Prod	356.72	418.43	253.18	36.7	46.7	28.1	9.72	8.96	9.01
Lumber & Paper Prod	698.61	715.89	737.80	43.8	44.3	52.7	15.95	16.16	14.00
Trans., Comm. & Util.	540.51	548.30	557.02	36.3	36.7	36.1	14.89	14.94	15.43
Trade	366.99	363.12	384.10	33.7	34.0	33.4	10.89	10.68	11.50
Wholesale	518.02	519.56	527.06	38.4	38.6	36.5	13.49	13.46	14.44
Retail	315.54	310.38	334.95	32.1	32.5	32.3	9.83	9.55	10.37
Finance-Ins. & R.E	385.73	389.76	382.80	32.8	33.6	33.2	11.76	11.60	11.53

Benchmark March 1986

1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor
2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

Correction: The following two tables published in the September *Alaska Economic Trends* (Table 8 and Table 9, page 17) have been corrected for the 1985 and 1986 years.

Average Monthly Wage by industry (in 1986 dollars)

Industry	1980	1981	1982	1983	1984	1985	1986	Percent Change 80–86	Ratio to State Average 1986
Mining	$4,797	$4,754	$4,705	$4,945	$4,908	$5,015	$5,311	0.11	2.24
Construction	4,211	4,377	4,387	4,193	3,813	3,491	3,383	-0.20	1.43
Manufacturing	2,326	2,128	2,176	2,251	2,212	2,058	2,000	-0.14	0.84
TPCU	3,099	3,193	3,224	3,176	3,071	2,951	2,799	-0.10	1.18
Wholesale Trade	2,718	2,669	2,714	2,757	2,676	2,651	2,558	-0.06	1.08
Retail Trade	1,459	1,457	1,440	1,492	1,458	1,402	1,316	-0.10	0.56
Finance)Ins. & R.E.	1,973	1,969	2,113	2,188	2,203	2,215	2,252	0.14	0.95
Services & Misc.	1,809	1,905	2,028	2,032	1,955	1,836	1,760	-0.03	0.74
Federal Government	2,195	2,278	2,233	2,361	2,368	2,342	2,348	0.07	0.99
State Government	2,880	2,826	2,833	2,912	2,813	2,883	2,889	0.00	1.22
Local Government	2,400	2,485	2,607	2,669	2,677	2,588	2,749	0.15	1.16
State Average	2,451	2,516	2,560	2,600	2,506	2,414	2,370	-0.03	1.00
Anchorage CPI	228.20	246.50	260.10	264.80	275.60	282.30	287.70	0.26	

Note: Adjusted to 1986 dollars with the annual Anchorage CPI-U

Source: Alaska Department of Labor, ES-202 files.

Alaska Average Monthly Wage by Census Area (in 1986 dollars)

Census Area	1980	1981	1982	1983	1984	1985	1986	Percent Change 80–86	Ratio to State Average 1986
Aleutian Islands	$1,974	$1,873	$1,906	$1,861	$1,881	$1,911	$1,935	-0.02	0.82
Anchorage Borough	2,421	2,435	2,457	2,496	2,438	2,391	2,396	-0.01	1.01
Bethel Census Area	1,528	1,738	1,839	1,917	1,918	1,790	1,891	0.24	0.80
Bristol Bay Borough	2,205	2,439	2,265	2,136	2,279	1,896	2,049	-0.07	0.86
Dillingham Census Area	2,089	2,080	2,065	2,364	1,978	1,894	1,905	-0.09	0.80
Fairbanks Northstar Borough	2,593	2,586	2,651	2,683	2,521	2,479	2,360	-0.09	1.00
Haines Borough	1,625	1,849	1,964	2,120	2,174	2,129	2,427	0.49	1.02
Juneau Borough	2,353	2,442	2,433	2,488	2,374	2,339	2,332	-0.01	0.98
Kenai Peninsula Borough	2,579	2,577	2,578	2,527	2,463	2,388	2,280	-0.12	0.96
Ketchikan Gateway Borough	2,373	2,244	2,312	2,346	2,235	2,139	2,144	-0.10	0.90
Kodiak Island Borough	1,943	1,905	2,088	2,185	1,954	2,006	1,628	-0.16	0.69
Matanuska-Susitna Borough	2,023	2,085	2,175	2,118	2,167	2,008	2,023	-0.00	0.85
Nome Census Area	1,900	1,960	2,147	2,144	2,121	1,988	2,055	0.08	0.87
North Slope Borough	4,825	5,207	5,309	5,294	5,162	4,771	4,390	-0.09	1.85
Northwest Arctic Borough	2,034	2,044	1,948	2,207	2,179	2,006	1,994	-0.02	0.84
Prince of Wales-Outer Ketch.	2,402	2,199	2,203	2,351	2,239	1,974	2,099	-0.13	0.89
Sitka Census Area	2,337	2,433	2,438	2,319	2,221	2,038	2,043	-0.13	0.86
Skagway-Yakutat-Angoon	1,770	1,841	2,032	2,285	1,841	1,793	1,867	0.05	0.79
Southeast Fairbanks	1,897	1,975	1,846	1,955	1,928	1,935	2,086	0.10	0.88
Valdez-Cordova	2,824	2,824	2,777	2,642	2,641	2,555	2,521	-0.11	1.06
Wade Hampton	1,522	1,628	1,687	1,670	1,649	1,441	1,590	0.04	0.67
Wrangell-Petersburg	1,945	2,092	2,128	2,292	2,110	2,138	2,123	0.09	0.90
Yukon-Koyukuk	2,758	2,781	2,733	2,752	2,602	2,102	2,222	-0.19	0.94
Unknown Area	1,375	1,181	2,692	3,134	3,490	2,948	2,689	0.95	1.13
State Average	2,451	2,516	2,560	2,600	2,506	2,414	2,370	-0.03	1.00

Table 9
Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 9/87	R/ 8/87	9/86	P/ 9/87	R/ 8/87	9/86	P/ 9/87	R/ 8/87	9/86	P/ 9/87	R/ 8/87	9/86
Alaska Statewide	256,279	263,122	263,411	22,029	23,961	24,244	8.6	9.1	9.2	234,250	239,161	239,167
Anch.-MatSu Region	133,856	135,602	139,314	10,753	11,633	11,930	8.0	8.6	8.6	123,103	123,969	127,384
Anchorage Borough	118,617	119,977	122,942	8,403	9,032	9,437	7.1	7.5	7.7	110,214	110,945	113,505
MatSu Borough	15,239	15,625	16,372	2,350	2,601	2,493	15.4	16.6	15.2	12,889	13,024	13,879
Gulf Coast Region	27,717	30,996	28,214	2,814	2,977	3,395	10.2	9.6	12.0	24,903	28,019	24,819
Kenai Peninsula Bor	17,097	19,102	17,393	2,238	2,384	2,584	13.1	12.5	14.9	14,859	16,718	14,809
Kodiak Island Bor	6,472	7,267	6,716	266	285	531	4.1	3.9	7.9	6,206	6,982	6,185
Valdez-Cordova	4,148	4,627	4,105	310	308	280	7.5	6.7	6.8	3,838	4,319	3,825
Interior Region	39,093	39,245	40,669	4,319	4,834	4,655	11.0	12.3	11.4	34,774	34,411	36,014
Fairbanks North Star Br	33,873	33,917	35,337	3,679	4,038	4,067	10.9	11.9	11.5	30,194	29,879	31,270
Southeast Fairbanks	2,284	2,306	2,335	257	300	235	11.3	13.0	10.1	2,027	2,006	2,100
Yukon-Koyukuk	2,936	3,022	2,997	383	496	353	13.0	16.4	11.8	2,553	2,526	2,644
Northern Region	8,195	8,346	8,363	755	966	952	9.2	11.6	11.4	7,440	7,380	7,411
Nome	3,182	3,233	3,203	356	430	388	11.2	13.3	12.1	2,826	2,803	2,815
North Slope Borough	2,864	2,889	2,919	126	173	192	4.4	6.0	6.6	2,738	2,716	2,727
Northwest Arctic Bor	2,149	2,224	2,241	273	363	372	12.7	16.3	16.6	1,876	1,861	1,869
Southeast Region	35,249	35,897	35,310	2,446	2,590	2,519	6.9	7.2	7.1	32,803	33,307	32,791
Haines Borough	951	983	973	65	83	87	6.8	8.4	8.9	886	900	886
Juneau Borough	15,475	15,841	15,675	938	1,080	1,143	6.1	6.8	7.3	14,537	14,761	14,532
Ketchikan Gateway Br	7,091	7,203	7,107	483	494	502	6.8	6.9	7.1	6,608	6,709	6,605
Pr. of Wales-Outer Ktch	2,548	2,537	2,486	309	264	248	12.1	10.4	10.0	2,239	2,273	2,238
Sitka Borough	4,179	4,236	4,124	271	268	218	6.5	6.3	5.3	3,908	3,968	3,906
Skagway-Yakutat-Ang	1,578	1,601	1,536	175	176	133	11.1	11.0	8.7	1,403	1,425	1,403
Wrangell-Petersburg	3,427	3,496	3,409	205	225	188	6.0	6.4	5.5	3,222	3,271	3,221
Southwest Region	12,169	13,036	11,541	942	961	793	7.7	7.4	6.9	11,227	12,075	10,748
Aleutian Islands	3,108	3,321	2,982	110	96	111	3.5	2.9	3.7	2,998	3,225	2,871
Bethel	4,946	5,325	4,627	490	533	362	9.9	10.0	7.8	4,456	4,792	4,265
Bristol Bay Borough	458	481	422	30	21	12	6.6	4.4	2.8	428	460	410
Dillingham	2,101	2,236	2,028	116	101	127	5.5	4.5	6.3	1,985	2,135	1,901
Wade Hampton	1,556	1,673	1,482	196	210	181	12.6	12.6	12.2	1,360	1,463	1,301

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaning) ful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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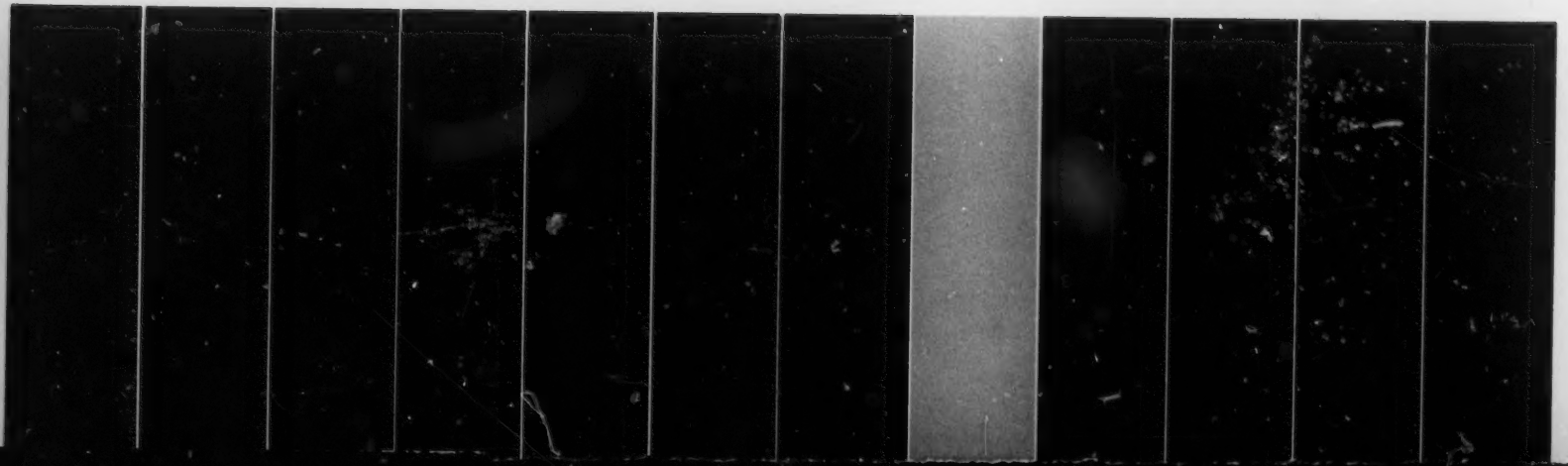

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ALASKA ECONOMIC TRENDS

December 1987

Matching the Work Force with the Work Place

The Alaska Employment Scene

Alaska Economic Trends

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Department of Labor

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

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Matching the Work Force with the Work Place

By Terry Elder

When one walks through a business district, and looks at all of the various types of businesses staffed by people of different backgrounds and skills, one cannot help but wonder how the people were matched with the jobs. This is a concern to everyone. It is a concern to labor market analysts and organizations directly involved in matching workers and jobs. It is a concern to individuals, especially those who are unemployed or are underemployed and need a job. It is a concern to all who seek to promote local hire, since local hire is impossible in the absence of a local work force. Finally, it is a concern to every employer because the availability of a skilled work force has immediate impacts on the firm's costs, on productivity, and on profits.

These concerns are magnified when the company is starting a business which is new to an area, and/or entering an area which lacks a well-developed business sector and labor market. In such a case, the company may have to take an active part in preparing the work force for wage labor in general, and for work in its industry in particular.

Two current examples of such activities on the part of companies to develop a local labor force are the mining developments at Greens Creek near Juneau and at Red Dog near Kotzebue. This article will describe briefly how the two companies are approaching the problem. Following a short introduction about the mining developments, a section on each mine will outline their training programs. A concluding section will highlight the similarities and the differences in the companies' approaches.

The role of Alaska in mineral production is changing. The historical image of the state as a source of gold is being replaced by an image of a state which produces a wide range of minerals for world consumption, including zinc, lead, coal, gold, silver, as well as other minerals. Among the developments central to the improved image are the mining developments at Red Dog and at Greens Creek. After these mines are in production Alaska will rank first in zinc production, second in silver and lead production, and third in the production of gold among the states.

Two examples of companies developing a local labor force are the mining developments at Greens Creek and Red Dog.

The Red Dog deposit, being developed by Cominco Alaska, contains an estimated eighty-five million tons of ore. The ore is 17.1% zinc, 5.0% lead, and contains 2.4 ounces/ton of silver, as well as other minerals. It is the largest known reserve of undeveloped zinc in the world. The richness of the ore deposit in terms of percentage mineralization, and the relatively small amount of ground covering the deposit, called overburden, combine to make this a world-class deposit and a low-cost producer for years to come. The deposit is owned by the NANA Regional Corporation, and is located about fifty-two miles from the Chukchi Sea, about ninety miles northeast of Kotzebue.

In order to promote the early development of the mine and other mineral deposits in the area, and to generate needed employment in the region, the state is building a port and a road from the port to the mine at an estimated cost of $150 million. The developer and owner of this transportation system, called the DeLong Mountains Transportation System, is the Alaska Industrial Development and Export Authority. Cominco has signed a contract, backed by a letter of credit, to pay a user fee, in addition to costs of operation and maintenance, for the use of the system. The fee is calculated to repay the state, at least its initial investment plus a return of 6.5%, over a fifty-year period.

The benefits to the state are that the system will open the region for future development. About 300-400 jobs will be created in an area which lacks a broad business sector, and, in addition to the fee income, the state should benefit from future tax receipts and from lower transfer payments in the area.

A benefit to Cominco is that, by removing the costs of the transportation system from its capital requirements and making them operating costs, its capital investment for development is reduced from about $420 million to $270 million and its rate of return on capital is increased. This allows the development to proceed earlier than would otherwise be the case.

The benefits to the state are that the system will open the region for future development.

Current plans call for production to begin in 1990, at a rate close to the mine's and mill's 700,000 tons/year capacity. Of the roughly 400 jobs created, about 200 will be at the mine site at any one time. During their shifts the workers will live in quarters near the site, but will return to their villages at other times in order to minimize the impact of the development on the life style of the region.

The mineral deposit at Greens Creek, on Admiralty Island about eighteen miles southwest of Juneau, is being developed by the Greens Creek Mining Company, which is jointly owned by Amselco (79%), a subsidiary of BP North America, Inc., by CSX Oil and Gas Corp. (12.3%), and by Exalas Resources (8.7%). Development costs are expected to be about $80 million, and production should begin in late 1988. The mine will produce about 1,000 tons/day, and should create about 225-265 jobs. Workers will live in Juneau and will commute to work via vessels being constructed for the company in Sitka.

Currently, the deposit is estimated to contain about four million tons of ore. It is 10.8% zinc, 4.2% lead, and contains 0.16 ounces of gold and 25.3 ounces of silver per ton of ore. This will make Greens Creek the largest silver producer in the United States. Like Red Dog, the ore concentrates from Greens Creek are expected to be shipped all over the world, and especially to Asia and to the lower forty-eight states. Also similar to Red Dog, the development is occurring in an area which lacks a labor force which possesses direct mining experience.

Greens Creek Mining Company

Greens Creek Mining Company is working with the Employment Security Division (ESD) of the Alaska Department of Labor and with the Office of Continuing Education of the University of Alaska Southeast to develop a pool of labor from which it can draw people to work in the Greens Creek mine and mill. It appears to be a good division of labor with the university providing training, with ESD recruiting people to be trained, and Amselco hiring trained people to work in the mine and mill.

The general prerequisites for enrollment in the training are minimal. The company requires the person to be at least eighteen years of age, and to be able to speak, to read, and to write English. Some jobs require a valid Alaska driver's license. A person who can fill out an application properly most likely satisfies the minimum requirements of a facility in English.

The Employment Security Division recruited applicants for the training and registered them for the course. The ESD placed advertisements in newspapers, and placed posters in Juneau to announce the dates for course registration. In addition, the division sent letters to individuals who had applied directly to Amselco to inform them of the program. The advertising must have been effective, for by 9:30 a.m. on October 5, the first day of registration, the division had already filled over a hundred of the 250 available training slots. Soon, the division had filled the class and was establishing a waiting list of applicants.

The training program has not been refined fully at this time, and instructors have not been hired yet. However a general outline of the program has been developed, and the objective is

clear. The objective is to prepare a pool of workers for entry-level jobs in a mine and mill environment. Table 1 gives a short description of the jobs for which workers will be prepared.

While mine experience and/or experience related to one of the desired occupations, such as electrical work is preferred it generally is not required. The company does not expect to find many people in the area who have mining experience generally, and underground experience in particular. Therefore, it is the objective of the program to prepare people for mining work. The company expects that further training will be required after the person is hired. That training will be more task specific and will involve more hands-on work than will the program being developed by the university.

The course is scheduled to begin in early January, and to last until April 15, 1988. The dates were set to accommodate the company's mine development plan which calls for production operations in the fall of 1988. Around April 15 it is expected that Greens Creek Mining Company will interview the people who successfully complete the training program. The company will make its hiring decision, and will decide specifically in which job to place each individual. That will allow time for the on-the-job training to be completed after hiring so that the workers are ready to meet the production schedule.

This is a general training program that the company plans to require most of its work force to complete. Indeed, the university indicates that it expects a long-term relationship to develop with Greens Creek. That implies that the program may evolve over time as the program in the future will not have to adapt itself to the unique requirements of the mine's start-up phase, but can concentrate on the long-term needs of the company and on the education and training demands of the workers.

However, the first course offering likely will be influenced by the short-term requirements of the mining project. While the course has yet to be developed in detail, a review of an August 24, 1987, outline for a course entitled "Underground Metal Miner," offered by the Mining and Petroleum Training Service of the University of Alaska Anchorage, may give some insight into the program in Juneau. Following is a list of the main topics covered in the course outline:

1. History and background of underground metals mining.
2. Health, safety, and hazard training for the newly employed, inexperience miner.
3. Mining and mineral economics.
4. Underground mining cycle (drilling, advance roof, etc.).
5. Mining tasks.
6. Mechanized equipment and operation.
7. Milling tasks.
8. Mine rescue.

As mentioned earlier, most of the course will be designed as classroom instruction which will prepare workers for on-the-job training after they are hired. It may develop into something more, including a type of apprenticeship program, or an Associate of Arts degree program. However it may evolve, it appears to be a successful partnership which ultimately will benefit the company, the university, and the workers.

The university will benefit from a broadening of its client base. The company will benefit from the availability of a prepared work force and a program it can use as a pre-employment screening device. The

Table 1
Greens Creek Mining Company
Entry-Level Job Descriptions

Job Title	Purpose	Working Conditions
Maintenance Technician I	Installs, repairs, and maintains equipment in safe, efficient manner.	Work underground, rotating shifts and overtime as required. Work may involve inclement conditions, and may be physical and monotonous.
Operator Technician I	Operates equipment safely and efficiently.	Work underground, rotating shifts and overtime as required. Work may involve inclement conditions, and may be physical and repetitive, and may include emergency conditions.
Electrical Technician I	Performs electrical repair and preventive maintenance.	Work underground, rotating shifts and overtime as required. Work may involve inclement conditions, and may be physical and repetitive, and may include emergency conditions.
Mine Technician I	General labor in mining department.	Work underground, rotating shifts and overtime as required. Area may be cold, hot, wet, or dusty. Work may be strenuous and/or monotonous.
Mill Technician I	General labor in milling department.	Not available.

workers will benefit from a program which will provide them the training they need to work in an environment for which they have no previous experience. They will benefit also from the relationship that the university has with the employer which should improve the likelihood that the individual's investment in training will lead to employment.

Cominco Alaska (Red Dog)

Cominco is the developer of the Red Dog mine, but the NANA Regional Corporation owns the mineral deposit. As a result of the diverse objectives of the Native corporation and its position as owner of the mineral deposit, NANA was able to contract with a developer such as Cominco, which is sensitive to the local hire wishes of people in the area. Because of the long lead time required to develop a mine, the parties have had ample time to prepare a program which would prepare a work force to work in a mine environment. This is especially challenging to do in an area in which hard rock mining is new, and in which the predominant life style is subsistence.

The contract between NANA and Cominco establishes a long-term goal of 100% local area hire within twelve years of the beginning of production.

The contract between NANA and Cominco establishes a long-term goal of 100% local area hire within twelve years of the beginning of production. In order to meet that goal, Cominco has worked closely with NANA Regional Corporation and with Maniilaq Manpower Inc. to select and train workers according to a schedule which will meet the production plans of the mine development.

With the mine road and port currently under construction by an agency of the state (the Alaska Industrial Development and Export Authority), the company indicates that it plans to begin production in 1990. In addition, Cominco currently is planning on producing at a rate which is close to full design capacity soon after production begins. The company expects to employ about 300-350 people who will work in shifts. Employment at the mine site should be about 200 at any one time. They expect that this schedule will require the training of about 100-150 people from the area between now and the 1990 opening of the mine.

Working with NANA and Maniilaq Manpower, about a hundred people were selected for possible training. The Kotzebue office of the Employment Security Division of the Alaska Department of Labor administered the General Aptitude Test Battery to 65-70 people. Maniilaq Manpower recruited the people and arranged for testing dates and sites throughout the area. The Employment Security Division traveled to the sites, administered the tests and scored them in five job families (clerical, construction, and equipment operators, for example). There will be further testing of candidates in the future. It should be noted that the test is only one of several factors that the company uses in its hiring decision.

From this pool, NANA and Cominco jointly selected the first ten people to receive training. Actually, thirty people were chosen in order to provide two alternates for each person initially picked for training. Selection for training amounts to hiring since a person who satisfactorily completes the training is guaranteed employment. A strong link between training and employment should provide the company with the correct number of people trained in the correct skills, and should prevent large numbers of people getting trained without being able to find jobs when the training is completed.

The first ten trainees are receiving instruction in heavy equipment operation, diesel mechanics, and welding at the Alaska Vocational Technical Center (AVTEC) in Seward. The initial training lasts for 21-28 weeks. A typical training program might include instruction at AVTEC, followed by a period of on-the-job training on the site in the Kotzebue area, and possibly followed by another period of training at AVTEC. The typical training day includes six hours of hands-on experience, and two hours of classroom instruction. In addition to the vocational educational aspect of the program, it is possible for a trainee to upgrade generally the basic skills of math and reading, particularly as these skills relate to the job for which the person is being trained. A trainee may also complete the high school equivalency program (GED).

All of the parties at this time plan to continue to use the program for future staffing needs of the mine. The next ten people will begin a training program soon. The program will cover the electrical skill required at the mine. AVTEC is in the process of developing an electrical skills program that would be suitable. Funding for the training costs come from several sources, including Cominco, Job Training Partnership Act funds, and Department of Labor training funds.

All parties benefit from the arrangement. NANA is able to maximize the percentage of the work force that comes from its region. Training facilities in Alaska such as AVTEC can expand their base of clients. Cominco is able to select individuals for employment, and can ensure that they are trained in the correct skills that will satisfy the requirements of the mine development schedule. The trainees benefit from knowing that the training in which they invest about six months of their lives will lead to related employment upon the satisfactory completion of the program.

Conclusion

It is interesting to consider how a company in a new industry attracts workers in an area that lacks a large labor pool with the required specialized skills. The Greens Creek and Cominco mining projects face similar problems.

Their approaches are similar in that both companies work closely with local organizations and with training facilities to ensure that an appropriate number of people are prepared for mining jobs. Both companies are sensitive to local hire issues. They have planed for future staffing needs and recognize that their special situations require a more active role in the preparation of the work force than might be usual for many new businesses.

The training programs are quite different, however. The training for Red Dog employment, at least at this time, is considerably longer and includes a large emphasis on hands-on activities, compared to the classroom approach of Greens Creek which is followed by on-the-job training after hire. The other major difference is that hiring takes place before the training for Red Dog (although it is based on successful completion of the training program) whereas there is no pre-training employment guarantee by Greens Creek. However, the long-term approach of Greens Creek to use the program as a pre-employment requirement still provides a strong link between the training and a job.

The lesson is that public, private, and nonprofit organizations, which are interested in matching people and jobs, can work together to their mutual benefit. In securing a work force, these organizations do not have to take a passive role such as opening up the personnel office and seeing if anyone applies. In locations lacking an experienced labor force, organizations must actively develop a qualified pool of workers from which to draw.

The lesson is that public, private, and nonprofit organizations, which are interested in matching people and jobs, can work together to their mutual benefit.

In this effort the Division of Employment Security has taken an active role. Far from simply taking job orders and placing people who walk in the door, the division's work with Greens Creek and Red Dog demonstrates a desire and a capability to assist employers with their testing, recruiting, and training needs.[1] With each organization doing its part, the ultimate beneficiary is the worker who receives the proper training, and is rewarded with a good job.

[1] For more information on these capabilities, contact the Division of Employment Security, Alaska Department of Labor, P.O. Box 3-7000, Juneau, Alaska 99802, (907) 465-2712.

The Alaska Employment Scene

By Neal Fried

The tourists are gone, the frenzied commercial salmon season is over, and most of the construction projects are wrapped up for the winter. Alaska's economy is not just losing jobs as a result of the recession, but seasonal losses have set in and will be with us for at least the next four months. An additional 8,000 wage and salary jobs were lost in October and the state's jobless rate climbed to 9.1% (Table 9).

Seasonal downswings are an annual event during good years and bad. Everyone expects them but they compound the woes of an already weak economy. Individuals fortunate enough to secure seasonal employment, particularly construction jobs, probably worked a shorter season this year. The ability of these seasonal workers to supplement their smaller earnings with other short-term jobs will be in doubt this winter because of the present recession.

The industry picture has not changed during 1987.

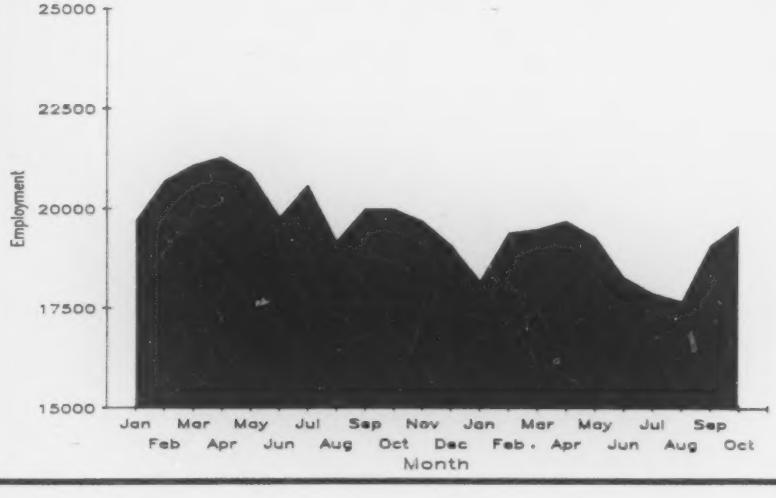
Signs of Moderating Trends

The industry picture has not changed during 1987 as the breadth of the employment declines remain with us. All but one major industry category remains on the negative side of the ledger when year-ago comparisons are made (Table 1). On a positive note, the losses appear to be moderating as the year comes to a close which may be an indicator of better times to come.

In the **oil industry** employment losses have moderated enough that a bottoming out appears possible by early 1988. October employment in this industry was down 4.1% compared to year-ago-levels but up slightly over-the-month. Stabilized oil prices and an increase in drilling activity point to signs of recovery in 1988.

State government employment losses are also bottoming out (Figure 1). In October last year over-the-year losses stood at 1,200 (-6%) but the over-the-year losses have shrunk to 400 (-2%) by this October. Most of the layoffs, early retirements, and attrition took place during the latter part of 1986 and early 1987 and presently appear to be played out. This is significant when you consider that 9% of the Alaska's employment is in state government.

Figure 1
Alaska State Government Employment, 1986 and 1987



Local government, which employs 13% of the state's nonagricultural wage and salary work force, is not in as good shape as its state counterpart. Local governments throughout the state are continuing to look for ways to pare their 1988 budgets. This will translate into less local government employment.

Alaska's Growth Industries

Growth industries are few and far between but they exist in the midst of our present recession. not only is there growth, it is in some of Alaska's important "basic" industries.

Bottom fishing is the premier growth industry of 1987. October's **fish processing** employment was a full 1,700 (41%) above year-ago levels and most of this growth can be attributable to the development of the bottom fish industry. In 1986 two processors

in Kodiak processed bottom fish while today all 12 processors in Kodiak are handling bottomfish.

Dutch Harbor has also become a very active participant in this industry. The City of Homer is ready to become the home port to three Oceantrawl bottom fish processor ships which may employ up to 450 locally hired workers. Other processors throughout the state also have jumped into bottom fishing ventures or have plans to do so.

New life is also being breathed into the king crab fishery after its collapse in the early 1980s. This year's harvest of King Crab is the first over-the-year increase since 1980 although it only represents a fraction of the huge harvests of the 1970s. If this fishery continues to rebound and bottom fishing can sustain itself, a tremendous potential for growth in the fishing industry exists.

In contrast to the oil industry, Alaska's **hard rock mining** is reaching new highs in employment for the 1980s. Prices for a majority of the important minerals in the state have been steadily increasing, giving rise to a flurry of activity. The development of Greens Creek and Red Dog are under way and a number of medium size and smaller gold mining operations have expanded or gone into operation. A number of other potentially large mining operations are in the planning stages. There is a good chance that 1987 will be remembered as the beginning of a major hard rock mining boom in Alaska.

The **timber industry** has also moved ahead in the midst of the present recession. It's recovery began in 1985 and has continued to the present, however, the specter of a national recession could bring growth to a halt.

The Remainder of the Economy

Construction's losses have moderated, but commercial and residential construction activity is almost nonexistent. A comparison of the first ten months of this year to the corresponding months in 1986 indicates this industry has lost an additional 1,570 jobs (12%) this year. Altogether, construction has lost 8,860 jobs or 43% of its employment since its peak October in 1984. To find an equivalent level of construction employment, one has to reach back to 1979, also a recessionary year for that industry because of the completion of the oil pipeline and related activity. Total employment, on the other hand, has only declined to 1982-1983 levels.

Alaska's **secondary industries** are presently suffering the greatest losses in employment. Declining incomes and wages automatically translated into additional declines in the secondary industries. These industries were among the fastest growing industries during the oil revenue boom era as they became caught up in the speculative fever of the time. When much of the support for their growth disappeared, losses in these industries were inevitable.

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

				Changes From:	
	p/ 10/87	r/ 9/87	10/86	9/87	10/86
Nonag. Wage & Salary	212,000	220,000	220,500	-8,000	-8,500
Mining	8,300	8,400	8,500	-100	-200
Construction	12,600	13,700	15,300	-1,100	-2,700
Manufacturing	12,100	15,200	10,300	-3,100	1,800
Food & Kindred Prod.	5,700	8,900	4,100	-3,200	1,600
Lumber & Paper Prod.	3,300	3,300	2,900	0	400
All Other Mfg.	3,100	3,000	3,300	100	-200
Trans. Comm. & Utilities	17,800	18,900	18,200	-1,100	-400
Trucking & Whseing.	2,100	2,200	2,200	-100	-100
Water Transportation	1,100	1,200	1,300	-100	-200
Air Transportation	5,500	5,800	5,300	-300	200
Other Trans. Comm. & Utilities	9,100	9,700	9,400	-600	-300
Trade	41,600	43,600	43,900	-2,000	-2,300
Wholesale	7,400	7,600	7,600	-200	-200
Retail	34,200	36,000	36,300	-1,800	-2,100
Gen. Mer. & Apparel	5,400	5,600	5,500	-200	-100
Food Stores	6,000	6,200	6,000	-200	0
Eating & Drinking Pl.	12,000	13,400	13,300	-1,400	-1,300
Other Retail Trade	10,800	10,800	11,500	0	-700
Finance-Ins. & R.E.	11,400	11,500	12,600	-100	-1,200
Services & Misc.	40,900	42,400	43,300	-1,500	-2,400
Government	67,300	66,300	68,400	1,000	-1,100
Federal	18,600	18,800	18,400	-200	200
State	19,600	19,100	20,000	500	-400
Local	29,100	28,400	30,000	700	-900

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1986.

p/ Denotes Preliminary Estimates.

r/ Denotes Revised Estimates.

Table 2
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage

	p/ 10/87	r/ 9/87	10/86	Changes From: 9/87	10/86
Nonag. Wage & Salary	102,850	104,800	108,950	-1,950	-6,100
Mining	3,350	3,350	3,250	0	100
Construction	6,800	7,350	8,250	-550	-1,450
Manufacturing	2,300	2,900	2,350	-600	-50
Food & Kindred Prod.	500	1,100	500	-600	0
Other Mfg.	1,800	1,800	1,850	0	-50
Trans. Comm. & Utilities	9,150	9,300	9,550	-150	-400
Trucking & Whseing.	1,400	1,450	1,400	-50	0
Water Transportation	300	250	350	50	-50
Air Transportation	2,950	2,950	3,050	0	-100
Other Trans. Comm. & Utilities	4,500	4,650	4,750	-150	-250
Trade	24,550	24,800	25,900	-250	-1,350
Wholesale	5,450	5,450	5,850	0	-400
Retail	19,100	19,350	20,050	-250	-950
Gen. Merchandise	2,000	1,950	1,950	50	50
Food Stores	3,100	3,150	3,000	-50	100
Eating & Drinking Pl.	7,300	7,550	8,000	-250	-700
Other Retail Trade	6,700	6,700	7,100	0	-400
Finance-Ins. & R.E.	7,250	7,400	8,250	-150	-1,000
Services & Misc.	23,300	23,700	24,600	-400	-1,300
Government	26,150	26,000	26,800	150	-650
Federal	10,600	10,750	10,350	-150	250
State	6,950	6,750	7,350	200	-400
Local	8,600	8,500	9,100	100	-500

Table 3
Nonagricultural Wage and Salary Employment
By Place of Work
Anchorage-MatSu

	p/ 10/87	r/ 9/87	10/86	Changes From: 9/87	10/86
Nonag. Wage & Salary	109,000	111,250	115,700	-2,250	-6,700
Mining	3,350	3,400	3,250	-50	100
Construction	7,100	7,700	8,700	-600	-1,600
Manufacturing	2,350	3,000	2,400	-650	-50
Trans. Comm. & Utilities	9,800	10,000	10,250	-200	-450
Trade	25,950	26,350	27,400	-400	-1,450
Finance-Ins. & R.E.	7,800	8,000	8,750	-200	-950
Services & Misc.	24,350	24,800	25,800	-450	-1,450
Government	28,300	28,000	29,150	300	-850

Service's over-the-year employment losses climbed from 1% in 1986 to 5% in 1987. Trade's employment losses (wholesale and retail) grew from 3% to 6%. The losses in finance, insurance, and real estate (FIRE), also accelerated, from 1% in 1986 to 6% in 1987. Combined, these three industries have lost 5,900 jobs from 1986 levels. It is not surprising that these industries' losses were somewhat delayed since it took time for losses in the other industries to filter down—particularly to services and finance. Losses in these industries will likely continue through 1988.

The Geographic Employment Picture

All of **Anchorage's** industries lost ground from September and total employment losses show no real signs of moderating. Over-the-year employment for the first ten months of 1987 averaged 5,990 less jobs (5.5%) from the same period in 1986. The same months for the 1985 to 1986 period the job losses totaled 4%. The losses are even broader than the state's—not a single major industry category is presently escaping losses (Table 2). The only "subcategory" that might be defined as a growth industry would be federal employment which has grown 2.4% over the year.

The FDIC closure of Bank of the North sent shudders throughout the financial community. The Bank of the North had major difficulties for a number of years so this action was not unexpected. The successful merger of the two troubled financial institutions, Alaska Mutual Bank and United Bank of the Alaska, into the Alliance Bank helped calm some concerns. Both the closure of Bank of the North and the merger have taken a toll on banking employment. By next month an estimate of the employment losses as a result of these two events will become more-clear.

On a more positive note, it was announced that ground would be broken in the spring of 1988 for a $230 million world class international resort near Eagle River including a major ski resort. They project the construction phase would create 633 jobs each year between 1988-1990 and the resort facility would employ 1,200 when it opens in 1991.

Fairbanks' economic picture is not much different from that in Anchorage. Unemployment in October reached 11.6% and the seasonal downswing cost 950 jobs (Table 4). Over-the-year losses continue to plague almost all of Fairbanks' major industry categories. Local government grabbed the headlines during the past month because of major revenue shortfalls. As a result, the Fairbanks North Star Borough announced 20 layoffs in October, not

the 90 they had initially expected. The City of Fairbanks' losses have been considerably larger—70 jobs or 27% of its work force.

Losses in construction in Fairbanks endure although they have moderated considerably. In 1986 the construction industry experienced a 45% over-the-year decline in employment while that rate of decline has fallen to 11% currently. Construction activity related to the Army's Light Infantry Division has helped absorb some of the losses.

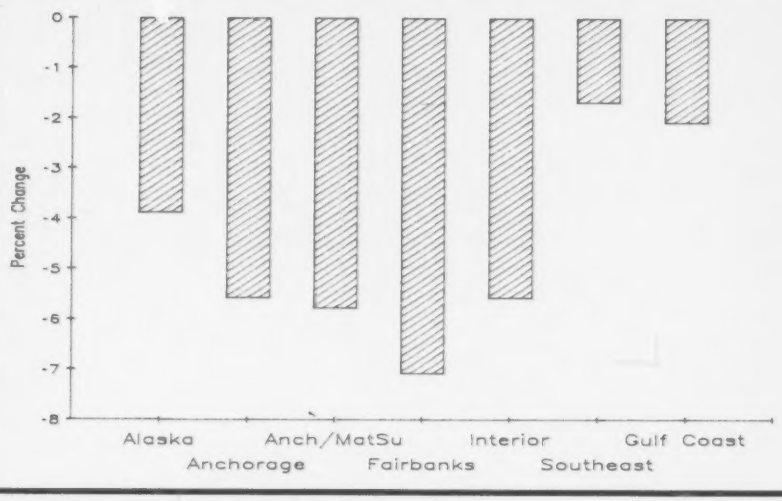
Four hundred additional soldiers arrived in November, bringing the grand total of new soldiers to Fort Wainwright to approximately 1,400 in 1987. By next year the influx of soldiers should begin to have measurable impacts on the economy. By next year losses in construction should be over and military related construction may manage to pull construction employment out of its downward spiral.

State government employment for the first time in months did not decline in Fairbanks. There were as many state jobs during October of this year as October 1986. Considering the fact that the state (including the University) accounts for 14% of Fairbanks' wage and salary employment, this stabilization is a significant development—another possible sign that the slide in employment may be over.

Most of the activity in the **Gulf Coast** region reflects what is occurring in the remainder of the state. The Kenai Peninsula's employment levels are continuing to slide in almost all industry categories. Unemployment remains high at 15.3%, the second highest rate in the state. Recently released adjusted sales tax figures revealed a 3.7% decline for the third quarter, which actually indicates some improvement from earlier quarters of this year.

Only fish processing employment figures are showing improvement (as a result of bottomfishing). Processors in Homer, Seward and Kenai have begun handling bottomfish. Kodiak is the only bright spot in the region, actually one of the few in the state, and bottom fishing has made this possible. Labor shortages in the bottom fishery are still being reported in Kodiak.

Figure 2
Percent Change in October Employment, 1986 to 1987



Four hundred additional soldiers arrived in November, bringing the grand total of new soldiers to Fort Wainwright to approximately 1,400.

Alaska Pacific Refining Inc. (APRI) recently announced it is forging ahead with its plans for a refinery in Valdez. If the refinery is built, it would employ 1,200 workers during the construction phase and 250 workers for operating the plant. APRI is still talking about breaking ground in the spring. If this does indeed happen, Valdez's present wage and salary work force of 1,800 would grow dramatically.

Southeast's economic picture is mixed. Juneau remains the major drag on the region's economy because of the economic overcapacity put in place during the oil revenue boom years. However, there are signs in Juneau that the worst may be over. State government employment levels are down from year-ago levels but no large additional layoffs are expected. Greens Creek mine on Admiralty Island will have largely a local workforce and this should provide an additional economic boost to the community. Other promising mine sites in the area are being considered for future development.

Table 4
Nonagricultural Wage and Salary Employment
By Place of Work
Fairbanks

	p/ 10/87	r/ 9/87	10/86	Changes From: 9/87	10/86
Nonag. Wage & Salary	26,000	26,950	28,000	-950	-2,000
Mining	100	150	100	-50	0
Construction	1,950	2,250	2,250	-300	-300
Manufacturing	550	600	650	-50	-100
Trans. Comm. & Utilities	2,500	2,750	2,700	-250	-200
Trucking & Whseing.	350	350	400	0	-50
Air Transportation	900	950	950	-50	-50
Other Trans. Comm. & Utilities	1,250	1,450	1,350	-200	-100
Trade	5,350	5,700	5,900	-350	-550
Wholesale	800	850	950	-50	-150
Retail	4,550	4,850	4,950	-300	-400
Gen. Mer. & Apparel	500	550	550	-50	-50
Food Stores	800	800	800	0	0
Other Retail Trade	3,250	3,500	3,600	-250	-350
Finance-Ins. & R.E.	950	950	1,050	0	-100
Services & Misc.	5,250	5,450	5,700	-200	-450
Government	9,350	9,100	9,650	250	-300
Federal	2,850	2,950	2,900	-100	-50
State	4,050	3,750	4,050	300	0
Local	2,450	2,400	2,700	50	-250

Table 5
Nonagricultural Wage and Salary Employment
By Place of Work
Interior

	p/ 10/87	r/ 9/87	10/86	Changes From: 9/87	10/86
Nonag. Wage & Salary	30,050	31,250	32,300	-1,200	-2,250
Mining	250	300	250	-50	0
Construction	2,050	2,450	2,350	-400	-300
Manufacturing	550	600	650	-50	-100
Trans. Comm. & Utilities	2,850	3,150	3,000	-300	-150
Trade	5,700	5,950	6,300	-250	-600
Finance-Ins. & R.E.	1,000	1,000	1,150	0	-150
Services & Misc.	5,750	6,150	6,300	-400	-550
Government	11,900	11,650	12,300	250	-400

Much of the remaining Southeast communities do not have the oil revenue boom overhang plaguing their economies. A healthy timber industry, so dormant in many Southeast communities until recently, has made it possible for many of the local economies to continue growing. Good tourism seasons have also contributed to healthy local economies.

A recent poor salmon harvest hurt some of the southern southeastern communities, but this is only temporary. Of all the regions in the state, Southeast Alaska is coming through the present recession the most unscathed.

Summary

September employment suffered losses, both seasonally and over-the-year. Few industries are immune from the present recession. Some signs of a better future exists, however, as many of those industries which are

Table 6
Nonagricultural Wage and Salary Employment
By Place of Work
Southeast Alaska

	p/ 10/87	r/ 9/87	10/86	Changes From: 9/87	10/86
Nonag. Wage & Salary	28,400	30,100	28,900	-1,700	-500
Construction	1,050	1,150	1,350	-100	-300
Manufacturing	4,150	4,800	3,700	-650	450
Food & Kindred Prod.	850	1,500	800	-650	50
Lumber & Paper Prod.	3,100	3,100	2,700	0	400
All Other Mfg.	200	200	200	0	0
Trans. Comm. & Utilities	2,050	2,350	2,050	-300	0
Trade	4,400	4,700	4,450	-300	-50
Wholesale	350	350	350	0	0
Retail	4,050	4,350	4,100	-300	-50
Finance-Ins. & R.E.	1,100	1,200	1,200	-100	-100
Mining, Services & Misc.	4,250	4,500	4,500	-250	-250
Government	11,400	11,400	11,650	0	-250
Federal	2,100	2,200	2,100	-100	0
State	5,050	5,000	5,200	50	-150
Local	4,250	4,200	4,350	50	-100

Table 7
Nonagricultural Wage and Salary Employment
By Place of Work
Gulf Coast

	p/ 10/87	r/ 9/87	10/86	Changes From: 9/87	10/86
Nonag. Wage & Salary	18,950	19,950	19,350	-1,000	-400
Mining	650	800	850	-150	-200
Construction	1,100	1,100	1,400	0	-300
Manufacturing	3,300	4,050	2,500	-750	800
Food & Kindred Prod.	2,700	3,450	1,900	-750	800
All Other Mfg.	600	600	600	0	0
Trans. Comm. & Utilities	1,300	1,300	1,300	0	0
Trade	3,300	3,600	3,500	-300	-200
Wholesale	450	600	500	-150	-50
Retail	2,850	3,000	3,000	-150	-150
Finance-Ins. & R.E.	550	600	650	-50	-100
Services & Misc.	3,200	3,200	3,400	0	-200
Government	5,550	5,300	5,750	250	-200
Federal	600	600	600	0	0
State	1,600	1,600	1,600	0	0
Local	3,350	3,100	3,550	250	-200

loosing employment such as mining, construction, and government are now showing a moderation in their losses.

In contrast, the timber industry continues to expand. In addition, other industries such as bottom fishing and hard rock mining have launched many new ventures this year and are creating new job opportunities. Geographically the economic picture is similar throughout the state. Most regions are enduring employment losses but the degree of declines varies. The largest declines are found in the Anchorage-Matsu and Interior regions, while Southeast is faring best. No overall growth in the economy is projected for the near term but an end to the deep economic descent of the past two years may be within sight.